

**CPC****COOPERATIVE PATENT CLASSIFICATION****A62C**

**FIRE-FIGHTING** ( fire-extinguishing compositions, use of chemical substances in extinguishing fires [A62D 1/00](#) ; spraying, applying liquids or other fluent materials to surfaces in general [B05](#) ; alarm arrangements [G08B](#) , e.g. fire alarms actuated by smoke or gases [G08B 17/10](#) )

**A62C 2/00**

**Fire prevention or containment** ( [A62C 3/00](#) takes precedence; flame traps [A62C 4/00](#) )

[A62C 2/04](#)

- . Removing or cutting-off the supply of inflammable material

[A62C 2/06](#)

- . Physical fire-barriers

[A62C 2/065](#)

- .. { having as the main closure device materials, whose characteristics undergo an irreversible change under high temperatures, e.g. intumescent ( intumescent materials forming part of the mechanism of another main closure device, see the relevant class ) }

[A62C 2/08](#)

- .. Water curtains ( nozzles [A62C 31/02](#) )

[A62C 2/10](#)

- .. Fire-proof curtains

[A62C 2/12](#)

- .. Hinged dampers

[A62C 2/14](#)

- ... with two or more blades

[A62C 2/16](#)

- .... multi-vane roll or fold-up type

[A62C 2/18](#)

- .. Sliding dampers

[A62C 2/20](#)

- ... at 90 degrees to the plane of the opening

[A62C 2/22](#)

- .. Fire-dampers with provision for the removal of an obstacle, e.g. rails, conveyers, before closing the opening

[A62C 2/24](#)

- .. Operating or controlling mechanisms { ( emergency operation of doors and windows [E05F 1/002](#) , [E05F 15/2015](#) ) }

[A62C 2/241](#)

- ... { having mechanical actuators and heat sensitive parts }

[A62C 2/242](#)

- .... { with fusible links }

[A62C 2/243](#)

- .... { with frangible elements }

[A62C 2/245](#)

- .... { with thermostatic elements, e.g. bimetallic, resettable actuators }

[A62C 2/246](#)

- ... { having non-mechanical actuators }

[A62C 2/247](#)

- .... { electric }

[A62C 2/248](#)

- .... { pneumatic }

**A62C 3/00**

**Fire prevention, containment or extinguishing specially adapted for particular objects or places** ( { in oil wells [E21B 29/08](#) , [A62C 35/00](#) ; in mines or tunnels [E21F 5/00](#) } ; for nuclear reactors [G21C 9/04](#) )

[A62C 3/002](#)

- . { for warehouses, storage areas or other installations for storing goods }

[A62C 3/004](#)

- .. { for freezing warehouses and storages }

[A62C 3/006](#)

- . { for kitchens or stoves }

[A62C 3/008](#)

- . { for decorations, e.g. Christmas trees ( Christmas tree decorations incorporating fire extinguishing or fire prevention means [A47G 33/0872](#) ; blowing or snuffing out

candle-flames [F23Q 25/00](#) ) }

- [A62C 3/02](#) . for area conflagrations, e.g. forest fires, subterranean fires
- [A62C 3/0207](#) . . { by blowing air or gas currents with or without dispersion of fire extinguishing agents; Apparatus therefor, e.g. fans }
- [A62C 3/0214](#) . . { for buildings or installations in fire storms }
- [A62C 3/0221](#) . . { for tunnels }
- [A62C 3/0228](#) . . { with delivery of fire extinguishing material by air or aircraft ( [fire-fighting aircraft B64D 1/16](#) ) }
- [A62C 3/0235](#) . . . { by means of containers, e.g. buckets }
- [A62C 3/0242](#) . . . { by spraying extinguishants from the aircraft ( [spraying from aircraft in general B64D 1/16](#) ) }
- [A62C 3/025](#) . . . { Fire extinguishing bombs; Projectiles and launchers therefor ( [launching apparatus for projectiles, missiles or torpedoes in general F41F 1/00](#) , [F41F 3/00](#) , [F41F 7/00](#) ) }
- [A62C 3/0257](#) . . { Fire curtains, blankets, walls, fences }
- [A62C 3/0264](#) . . . { by creating water curtains }
- [A62C 3/0271](#) . . { Detection of area conflagration fires ( [fire alarms for forest fires G08B 17/005](#) ) }
- [A62C 3/0278](#) . . { by creating zones devoid of flammable material }
- [A62C 3/0285](#) . . . { with creation of a fire zone by an explosion or a counter-fire }
- [A62C 3/0292](#) . . { by spraying extinguishants directly into the fire ( [A62C 3/0242](#) takes precedence ) }
  
- [A62C 3/04](#) . for dust or loosely-baled or loosely-piled materials, e.g. in silos, in chimneys ( [flame traps A62C 4/00](#) )
  
- [A62C 3/06](#) . of highly inflammable material, e.g. light metals, petroleum products
- [A62C 3/065](#) . . { for containers filled with inflammable liquids }
  
- [A62C 3/07](#) . in vehicles, e.g. in road vehicles
- [A62C 3/08](#) . . in aircraft { ( [A62C 3/0207](#) takes precedence ) }
- [A62C 3/10](#) . . in ships { ( [A62C 3/0207](#) takes precedence ) }
  
- [A62C 3/14](#) . in connection with doors, windows, ventilators, partitions, or shutters, e.g. automatic closing
  
- [A62C 3/16](#) . in electrical installations, e.g. cableways
  
- [A62C 4/00](#)** **Flame traps allowing passage of gas but not of flame or explosion wave**
  
- [A62C 4/02](#) . in gas-pipes ( [safety valves F16K 17/00](#) )
- [A62C 4/04](#) . in flues or chimneys
  
- [A62C 5/00](#)** **Making of fire-extinguishing materials immediately before use ( [nozzles A62C 31/02](#) )**
  
- [A62C 5/002](#) . { Apparatus for mixing extinguishants with water }

- A62C 5/004 . { for producing carbon-dioxide snow, carbon-dioxide ice, carbon-dioxide gas, carbon-dioxide liquid, or mixtures thereof ( [carbon-dioxide jet-pipes](#) or snow [jet-pipes A62C 31/03](#) ) }
- A62C 5/006 . { Extinguishants produced by combustion }
- A62C 5/008 . { for producing other mixtures of different gases or vapours, water and chemicals, e.g. water and wetting agents, water and gases }
- A62C 5/02 . of foam
- A62C 5/022 . . { with air or gas present as such }
- A62C 5/024 . . . { Apparatus in the form of pipes ( [jet-pipes](#) for foam [A62C 31/12](#) ) }
- A62C 5/027 . . Heavy foam
- A62C 5/033 . of gel

**Guidance heading: Hand fire-extinguishers**

**A62C 8/00 Hand tools or accessories specially adapted for fire-fighting, e.g. tool boxes**

- A62C 8/005 . { Receptacles or other utensils for water carrying; Bombs filled with extinguishing agents }
- A62C 8/02 . Buckets or pails
- A62C 8/04 . Rakes or beaters
- A62C 8/06 . Fire-blankets
- A62C 8/08 . Shields

**A62C 11/00 Portable extinguishers with manually-operated pumps**

- A62C 11/005 . { Receptacles of extinguishing agent with manually operable pump }

**A62C 13/00 Portable extinguishers which are permanently pressurised or pressurised immediately before use ( [A62C 11/00](#) takes precedence )**

- A62C 13/003 . { Extinguishers with spraying and projection of extinguishing agents by pressurised gas }
- A62C 13/006 . { for the propulsion of extinguishing powder }
- A62C 13/02 . with pressure gas produced by chemicals
- A62C 13/04 . . with separate acid container
- A62C 13/06 . . . with acid container without closure device
- A62C 13/08 . . . with acid container with closure device

- A62C 13/10 . . . . with loose-lid closure device ( [loosely-engaging lids or covers for containers for liquids without means for effecting sealing of container in general B65D 51/02](#) )
- A62C 13/12 . . . . with valve closure device
- A62C 13/14 . . . with acid container the shell of which is ruptured by pin, screw-pin, or similar device
- A62C 13/16 . . . with movable acid container ruptured by falling when operated
- A62C 13/18 . . . with acid container ruptured by a striking weight, e.g. by a falling weight
- A62C 13/20 . . with the chemicals in a single case, e.g. in a cartridge
- A62C 13/22 . . with incendiary substances producing pressure gas
  
- A62C 13/62 . with a single permanently pressurised container
- A62C 13/64 . . the extinguishing material being released by means of a valve
  
- A62C 13/66 . with extinguishing material and pressure gas being stored in separate containers
- A62C 13/68 . . characterised by means for releasing the extinguishing material
- A62C 13/70 . . characterised by means for releasing the pressure gas
- A62C 13/72 . . characterised by releasing means operating essentially simultaneously on both containers
- A62C 13/74 . . . the pressure gas container being pierced or broken
  
- A62C 13/76 . Details or accessories
- A62C 13/78 . . Suspending or supporting devices
  
- A62C 15/00** **Extinguishers essentially of the knapsack type** ( [knapsacks, carrying-frames, pack-frames carried on the body A45F 3/00](#) )
  
- A62C 17/00** **Hand fire-extinguishers essentially in the form of pistols or rifles**
  
- A62C 19/00** **Hand fire-extinguishers in which the extinguishing substance is expelled by an explosion ; Exploding containers thrown into the fire**
  
- A62C 25/00** **Portable extinguishers with power-driven pumps**
- A62C 25/005 . { [Accessories](#) }
  
- Guidance heading:** **Fire-fighting vehicles** ( [A62C 31/00](#) , [A62C 33/00](#) , [A62C 37/00](#) take precedence; vehicle aspects, see the appropriate subclasses of [B60](#) to [B64](#) , e.g. fire-fighting aircraft [B64D 1/16](#) )
  
- A62C 27/00** **Fire-fighting land vehicles**
  
- A62C 29/00** **Fire-fighting vessels or like floating structures**
  
- A62C 31/00** **Delivery of fire-extinguishing material** ( [pumps F04](#) ; { [suction or pressure](#) } [hoses](#), { [joints or couplings therefor](#) } [F16L](#) )

- A62C 31/005 . { using nozzles ( see warning after subclass title ) }
- A62C 31/02 . Nozzles specially adapted for fire-extinguishing
- A62C 31/03 . . adjustable, e.g. from spray to jet or vice-versa
- A62C 31/05 . . with two or more outlets
- A62C 31/07 . . . for different media
- A62C 31/12 . . for delivering foam or atomised foam
- A62C 31/22 . . specially adapted for piercing walls, heaped materials, or the like
- A62C 31/24 . . attached to ladders, poles, towers, or other structures with or without rotary heads
- A62C 31/28 . Accessories for delivery devices, e.g. supports

#### **A62C 33/00 Hose accessories**

- A62C 33/02 . Apparatus for cleaning or drying hoses ( drying shelves [F26B](#) )
- A62C 33/04 . Supports or clamps for fire hoses
- A62C 33/06 . Hose or pipe bridges

#### **Guidance heading: Permanently-installed equipment**

#### **A62C 35/00 Permanently-installed equipment ( [A62C 31/00](#) , [A62C 33/00](#) , [A62C 37/00](#) take precedence; for forming water curtains [A62C 2/08](#) )**

- A62C 35/02 . with containers for delivering the extinguishing substance
- A62C 35/023 . . { the extinguishing material being expelled by compressed gas, taken from storage tanks, or by generating a pressure gas ( for foam generation [A62C 5/02](#) ) }
- A62C 35/026 . . { the extinguishing material being put under pressure by means other than pressure gas, e.g. pumps }
- A62C 35/04 . . Swingable or tiltable containers
- A62C 35/06 . . Containers destroyed or opened by falling
- A62C 35/08 . . Containers destroyed or opened by bursting charge
- A62C 35/10 . . Containers destroyed or opened by flames or heat
- A62C 35/11 . . controlled by a signal from the danger zone
- A62C 35/13 . . . with a finite supply of extinguishing material
- A62C 35/15 . . . with a system for topping-up the supply of extinguishing material automatically
- A62C 35/20 . Hydrants, e.g. wall-hoses, wall units, plug-in cabinets ( hydrants in streets [E03B 9/02](#) )
- A62C 35/58 . Pipe-line systems
- A62C 35/60 . . wet, i.e. containing extinguishing material even when not in use
- A62C 35/605 . . . { operating and sounding alarm automatically ( see warning after subclass title ) }
- A62C 35/62 . . dry, i.e. empty of extinguishing material when not in use

- A62C 35/64 . . . pressurised
- A62C 35/645 . . . { with compressed gas in pipework ( see warning after subclass title ) }
- A62C 35/66 . . . Accelerators
- A62C 35/68 . . . Details, e.g. of pipes or valve systems ( valves in general [F16K](#) )

## **A62C 37/00**      **Control of fire-fighting equipment ( heat-sensitive devices [G01K](#) )**

### **WARNING**

Groups [A62C 37/04](#) and [A62C 37/28](#) are no longer used for the classification of new documents. Documents of these groups will be systematically transferred to groups [A62C 37/36](#) to [A62C 37/48](#)

- A62C 37/04 . . . with electrically-controlled release
- A62C 37/08 . . . comprising an outlet device containing a sensor, or itself being the sensor, i.e. self-contained sprinklers
- A62C 37/09 . . . telescopic or adjustable
- A62C 37/10 . . . Releasing means, e.g. electrically released
- A62C 37/11 . . . heat-sensitive
- A62C 37/12 . . . . . with fusible links
- A62C 37/14 . . . . . with frangible vessels
- A62C 37/16 . . . . . with thermally-expansible links
- A62C 37/20 . . . Resetting after use ; Tools therefor
- A62C 37/21 . . . automatic
- A62C 37/28 . . . with an explosive charge
- A62C 37/36 . . . an actuating signal being generated by a sensor separate from an outlet device

### **WARNING**

Groups [A62C 37/36](#) to [A62C 37/48](#) are not complete. See also [A62C 37/02](#) to [A62C 37/04](#) and [A62C 37/26](#) to [A62C 37/34](#)

- A62C 37/38 . . . by both sensor and actuator, e.g. valve, being in the danger zone
- A62C 37/40 . . . with electric connection between sensor and actuator
- A62C 37/42 . . . with mechanical connection between sensor and actuator, e.g. rods, levers
- A62C 37/44 . . . only the sensor being in the danger zone
- A62C 37/46 . . . Construction of the actuator
- A62C 37/48 . . . Thermally sensitive initiators
- A62C 37/50 . . . Testing or indicating devices for determining the state of readiness of the equipment

## **A62C 99/00**      **Subject matter not provided for in other groups of this subclass**

- A62C 99/0009 . . . { Methods of extinguishing or preventing the spread of fire by cooling down or suffocating the flames }

- A62C 99/0018 . . { using gases or vapours that do not support combustion, e.g. steam, carbon dioxide }
- A62C 99/0027 . . . { Carbon dioxide extinguishers }
- A62C 99/0036 . . { using foam }
- A62C 99/0045 . . { using solid substances, e.g. sand, ashes; using substances forming a crust }
- A62C 99/0054 . . { using counter-fire }
- A62C 99/0063 . . { with simultaneous removal of inflammable materials }
- A62C 99/0072 . . { using sprayed or atomised water }
- A62C 99/0081 . { Training methods or equipment for fire-fighting }
- A62C 99/009 . { Methods or equipment not provided for in groups [A62C 99/0009](#) to [A62C 99/0081](#) }