

## 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 15/72](#))}

#### 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

### **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}

**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}
- WARNING**
- 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

**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}

**WARNING**

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}

**WARNING**

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
  - 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
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- 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](#)}