

**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 <a href="#">B65D 51/02</a> )
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
<b>A62C 15/00</b>	<b>Extinguishers essentially of the knapsack type</b> ( knapsacks, carrying-frames, pack-frames carried on the body <a href="#">A45F 3/00</a> )	
<b>A62C 17/00</b>	<b>Hand fire-extinguishers essentially in the form of pistols or rifles</b>	
<b>A62C 19/00</b>	<b>Hand fire-extinguishers in which the extinguishing substance is expelled by an explosion; Exploding containers thrown into the fire</b>	
<b>A62C 25/00</b>	<b>Portable extinguishers with power-driven pumps</b>	
A62C 25/005	.	{ Accessories }
<b>Guidance heading:</b>	<b>Fire-fighting vehicles</b> ( <a href="#">A62C 31/00</a> , <a href="#">A62C 33/00</a> , <a href="#">A62C 37/00</a> take precedence; vehicle aspects, see the appropriate subclasses of <a href="#">B60</a> to <a href="#">B64</a> , e.g. fire-fighting aircraft <a href="#">B64D 1/16</a> )	
<b>A62C 27/00</b>	<b>Fire-fighting land vehicles</b>	
<b>A62C 29/00</b>	<b>Fire-fighting vessels or like floating structures</b>	



**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](#) }