

The early inventors of automatic fire extinguishing systems were British. The following key dates plot the development of this growing industry.

1723 Patent No. 458 granted on 12th November to Ambrose Godfrey, a chemist who lived in Covent Garden, London.

1763 - 1806 Many early developments were made to hydrant systems, notably in 1806. John Carey, a Doctor in Law from London, was granted Patent No. 2963 for a number of devices to extinguish fires in various types of buildings.

1809 Colonel William Congreve from Westminster patented (Patent No. 3201) a refined sprinkler system using wires and pulleys, in addition to strings and cords. In 1812, he went onto install an improved system in Theatre Royal, Drury Lane, London.

1852 William McBay of Woolwich was granted Patent No. 505 for a system designed for both buildings and ships that in some respects resembled a modern automatic sprinkler system.

1855 James Smith, a Liverpool Baker, was granted Patent No. 2375 for further developing a system very similar to earlier inventions of Carey and Congreve.

1861 Perforated pipe systems were being developed in the USA.

1863 Roger Dawson was granted a Provisional Patent No. 1869 for a manually operated sprinkler system supplied from gravity tank.

1864 Major A. Stewart Harrison of the First Engineer Volunteers, London, invented the first automatic sprinkler operating in a manner familiar today. Although cumbersome and crude it marked an advance in sprinkler technology and was superior to a number of devices that followed it in the UK and USA.

1865 James B. Francis, a hydraulics engineer from the Locks and Canals Company made further improvements to pipes used within sprinkler systems.

1872 Philip W. Pratt of Abington, Massachusetts, took a patent for the development of an automatic sprinkler system, further encouraged by mutual insurance companies.

1874 - 1878 Henry S. Parmelee of New Haven, Connecticut went onto patent an automatic system in 1874. Parmelee further developed his sprinklers and up to 200,000 Parmelee sprinklers were fitted, successfully extinguishing nineteen listed fires.

1880 Frederick Grinnell patented his first automatic sprinkler system.

1881 - 1883 A. M. Buritt of Waterbury, Connecticut, patented an improved rose type sprinkler.

1882 Grinnell patented the now famous No.1 sprinkler that was a radical departure from all previous designs. The first of these systems in the UK was installed in the cotton spinning mill of John Stones and Company, Astley Bridge, Bolton, Lancashire.



1883 - 1903 Improvements were made to Grinnell's sprinkler system designs and new models developed. The use of sprinkler systems spread across to Australia. The first Rules for the installation of Sprinkler Systems were written in 1885, and in 1892 the Fire Offices' committee published the first edition of the rules for the installation of automatic sprinklers.

1896 The National Fire Protection Association of America was formed and the draft sprinkler rules became the first edition of what has now become NFPA Code 13 Installation of Sprinkler Systems.

1922 onwards Further design improvements were made to the Grinnell sprinkler to develop the Quartz Bulb Sprinkler.

1930 The NFPA Code 13 was detailed further to include revisions for hazard classifications. The introduction of Class B Systems and Class A standard were introduced.

1932 The introduction of the Mulsifyre system in the UK, was a precursor of today's High Velocity Waterspray System.

1933 The Grinnell Quartzoid sprinkler was introduced (known as type C).

1940 Following a wide ranging report, NFPA Code 13 was completely revised and re-issued introducing Light, Ordinary and High Hazard classifications.

1946 - 1960 Many changes and improvements were made to Sprinkler regulations, including BSI standards.

1968 The 29th and final Edition of the Fire Offices' Committee Rules were published.

1975 The British Automatic Sprinkler Association, BASA was founded.

1979 - 1990 Further developments in Sprinkler regulations and standards were ongoing and work commenced on a European Sprinkler Standard using existing UK codes and insurance standards. This document was a major revision of the 29th edition of FCO/LPC rules.

1995 - 2000 Low and high pressure Water Mist Systems were under development and British standards continued to be developed and rigorously implemented.

2002 The European Fire Sprinkler Network was set up to encourage the installation of sprinklers. All large multi-storey buildings with a compartment size of over 2000 sqm., have to be fitted with sprinklers.

2003 - 2008 British and European Standards continued to be improved and developed. The Regulatory Reform (Fire Safety) Order 2005, came into effect imposing individual liability for maintaining fire safety equipment. A new DCSF policy on sprinklers for schools, recommended that all new schools have sprinkler systems fitted.

Sprinkler systems are now advanced, a glass bulb filled with liquid is used. As the liquid is expanded by the heat of a fire, pressure builds up until the bulb bursts the orifice cap. There are a limitless array of sprinkler heads and configurations.



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