

Residential Fire Sprinklers



Office of State Fire Commissioner

Tim Solobay

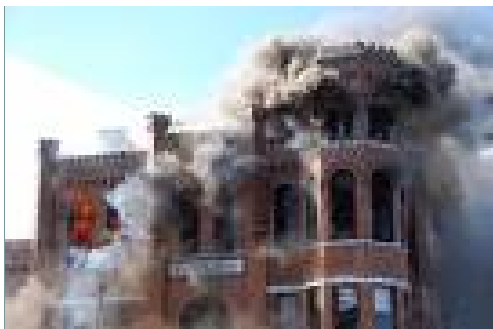
State Fire Commissioner

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[OSFC Residential Fire Sprinklers Questions and Answers \(PDF Document\)](#)



Fire Facts



- Fires kill more Americans than any natural disasters each year
- Someone dies in a fire every 175 minutes
- Someone is injured every 31 minutes
- Over 2,000 people die annually and 85% of fire deaths occur in the home

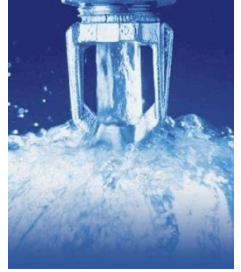


Source: Center for Disease Control and Prevention

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Sprinkler Facts



- **Sprinklers are designed to give occupants time to escape a fire.**
- **Over 95% of all fires in residential occupancies are suppressed by ONE sprinkler head.**
- **There is a 1 in 16 million chance that the sprinkler head will fail.**

Source: Maryland State Fire Marshal Office

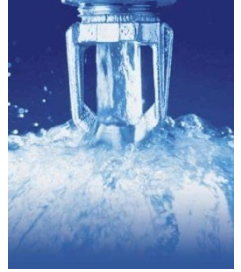
Sprinkler Facts



- Sprinklers are the most effective fire safety device ever invented.
- NFPA reports homes with smoke alarms have a 50% better chance of surviving a home fire.
- Combining smoke alarms and sprinklers increases your chances of surviving a home fire by over 85%.

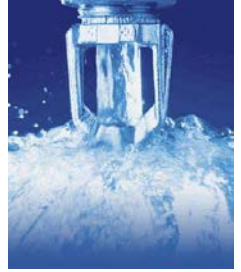
Source: National Fire Protection Association (NFPA)

Sprinkler Facts



- Like smoke alarms, sprinklers detect a fire; but they do even more, they quickly and automatically put water on a fire while it is still small.
- Sprinklers operate whether or not the occupants are home, awake or have responded to a sounding smoke alarm.

Sprinkler Benefits



- **Save occupants lives**
- **Save firefighters lives**
- **Compensate for current lightweight building construction**
- **Knocks down a fire in the early stages reducing toxic products of combustion**
- **Fire Insurance discount of 8 – 13%**

Save Lives



Between 1992-2007 in Prince George's County, Maryland

- **Zero fire deaths occurred in homes with sprinklers**
- **101 fire deaths occurred in home fires without sprinklers**
- **Over 60,000 homes were sprinklered**
- **Over 245 fires occurred in homes with sprinklers**

Source: Prince Georges County Report

Save Property



- Sprinklers are designed to save lives, but because they control fires so quickly, they also reduce property damage and protect your greatest investment.
- Property damage from a fire is twelve times lower in homes with sprinklers

Source: Home Fire Sprinkler Coalition Report on Bucks County, PA

Installation



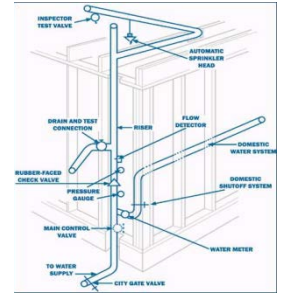
- Sprinklers are linked by a network of piping, typically hidden behind walls and ceilings.
- Like your plumbing, sprinkler pipes are not exposed to cold areas so they are protected from freezing.
- Sprinklers are paid for over the life of a mortgage, just as the electrical or plumbing system in your home.

Installation



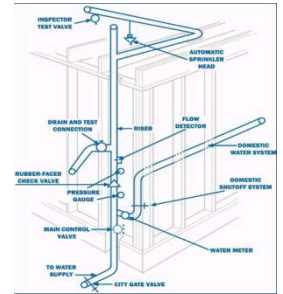
- In most settings where there is a municipal water supply, sprinklers operate off the household water main.
- When the water supply is a well, or there is not enough water pressure, a pump and holding tank may be required in rural areas.

Maintenance



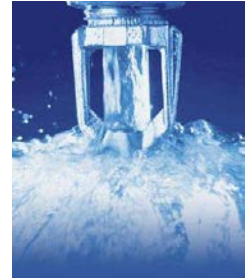
- **Do sprinklers leak?**
 - Sprinklers are tested to the same static pressure as your plumbing system.
 - Sprinkler heads are factory tested to 500 PSI for a moment.
- **Require very little maintenance**
 - Ensure that nothing is hanging from the sprinkler head, or blocking them.

Maintenance



- Valves should be similarly checked to ensure they are turned on.
- Sprinkler system flow switch and water flow alarms should be tested about once a year.
- A simple test that can be done by the homeowner or a contractor.

Sprinkler Facts



MYTH:

All sprinklers will operate (open) during a fire

FACT:

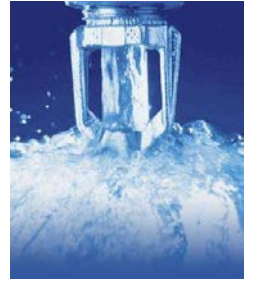
Only sprinkler heads that are heated by a fire will activate. Smoke, burned toast, cooking vapors, steam, smoke alarms do not activate sprinklers. Only heat activates a sprinkler and most fires are controlled by ONE sprinkler head.

Are they Ugly?



- Residential sprinklers are available in colors to match ceilings and walls
- Most are partially recessed into the ceiling, with $\frac{1}{4}$ " – $\frac{3}{4}$ " showing below ceiling
- Concealed models are available and hidden by a painted cover plate held in place by a metallic link that melts in a fire and exposes the sprinkler head.

Sprinkler Facts



MYTH:

Sprinklers cause water damage

FACT:

A residential sprinkler head sprays about 13-14 gallons per minute. A fire hose sprays 175-200 gallons per minute.

RESIDENTIAL SPRINKLERS

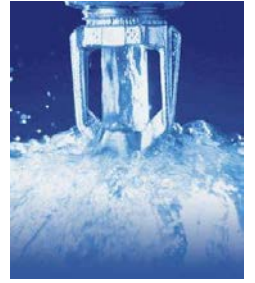


It's like
having a
firefighter
in every
room of
your
home.

A single sprinkler using 13-14 gallons of water
can put out 90% of fires. A fire hose puts out
125-500 gallons per minute. You choose!

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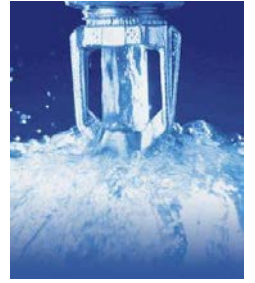
Sprinkler Video



“Marble Mountain” Video

http://www.ocfa.org/_uploads/video/sprinkler1.wmv

Sprinkler Video



Fresno Fire Video

Live Fire Sprinkler Demo

Side by Side Burn Video