

Residential fire Sprinkler Systems

Sprinklers protect our factories, office buildings, schools, and other commercial structures from the devastating effects of fire. But what about where fires are most common – *in our homes*? Until recent years, fire sprinklers in homes were relatively rare and limited primarily to high-rise and high-density residences. Fire sprinklers, however, offer potential benefits for virtually every home. Fire sprinklers can save lives, reduce property loss and can even cut homeowners insurance premiums. Home fire sprinklers can contain or even extinguish fires in less time than it would take the fire department to arrive at the scene. Combined with the use of smoke detectors, fire sprinklers also reduce the risk of dying in a home fire by 82 percent (as compared to having neither). The Gastonia fire Department recognizes the effectiveness of fire sprinklers in saving lives and protecting property, and encourages homeowners to consider installing residential sprinkler systems.

How much does Residential Sprinklers Cost?

The cost of a sprinkler system is about \$1.50-2.00 per square foot in a new home (1-2% of the cost). In existing homes they range from \$2.50-5.00 per square foot, depending on how difficult it is to run the pipes. This assumes the availability of an adequate water supply.

Some Misconceptions about fire sprinklers

1) When one sprinkler goes off they all go off.

Despite what you might see in movies or on television, sprinkler heads react independently to temperatures in each room. Thus, only the sprinkler closest to the fire will activate, spraying water directly on the fire. The rest of the sprinklers in the house will not activate unless there is also fire in that location. Nearly 90% of all fires are contained with a single sprinkler.

2) If I burn something on the stove, the sprinklers will go off.

Smoke alone cannot trigger sprinkler operation. Each sprinkler is individually activated by heat and will only go off in the event there is an actual fire

3) A sprinkler could accidentally go off causing severe water damage to my home.

The likelihood that a sprinkler could discharge accidentally due to a manufacturing defect is extremely remote. Your home is much more likely to be damaged by leaks from ordinary household plumbing than from a residential sprinkler system.

Once a fire begins, only one or two sprinklers near the fire activate and discharge water. Residential sprinklers discharge water at a low rate, so your home will not be flooded. (Flooding is not a danger with sprinklers in commercial buildings either.) After the fire is out, the supply valve can be simply shut off – but never do this by yourself. Always call the fire department and let the professionals determine when it is safe to shut off the water.

4) Water damage from a sprinkler system would be more extensive than the damage from the fire itself.

Sprinklers severely limit a fire's growth and use only a fraction of the water used by fire department hoses. Therefore, damage from a home fire sprinkler system will typically be much less severe than if a fire were extinguished using conventional firefighting techniques.

5) Home fire sprinklers are expensive

Nationally, on average, home fire sprinklers add only 1% to 2% to the total cost of new construction. Residential fire sprinkler systems may also be economically retrofitted to protect many older homes.

6) Residential sprinklers are ugly

Modern residential sprinklers are inconspicuous, come in designer colors, and can be mounted flush with walls or ceilings

7) Will installing a residential sprinkler system reduce my insurance premiums?

Installing a residential sprinkler system will generally reduce costs for homeowner's insurance because fire sprinklers will keep damage low. Discounts for homeowner's insurance range between 5% and 15% and vary by insurance provider.

8) Can I install a residential fire sprinkler system getting water from a well?

Homes can be protected by fire sprinklers even in the most remote areas. Several manufacturers offer water tanks to supply residential fire sprinkler systems. The tanks are designed to fit in a garage or other storage area and can hold enough water to comply with national standards for home fire sprinkler systems.