

Firehouse.com WEEKLY DRILL

DRILL # 31: SPRINKLER SYSTEMS – PART 2

Introduction

Each sprinkler head has been designed to operate in a specific manor and, with that in mind, we are going to look at some of them this week.

One area where they differ from one another is in the mechanism used to activate the sprinkler head. We all know that the sprinkler head gets activated by the buildup of heat around it. This is where the difference comes into play.

Each sprinkler head has some type of fusible link associate with it. They can be any one of the following types:

- Heat collector fusible element
- Frangible bulb fusible element
- Link-and-lever fusible element
- Fusible pellet activating element

In theory, each sprinkler head is designed to activate at a set temperature (or more generally within a temperature range). This has to be understood by all firefighters and should be the focus of their attention when placing the system back in service after an incident.

For most fire departments, placing the fire sprinkler system back in working order and activating it is not something they particular like doing, as this could place the responsibility for the system operating properly the next time on them. The last thing a fire department wants is a lawsuit brought against them for failing to place the system back in the proper operating order. For this reason, it is a good practice to have the building occupant or owner contact a professional fire sprinkler system company to reactivate the system.

As mentioned previously, we need to be able to identify the temperature ratings for the sprinkler heads. All sprinkler heads will have the temperature rating stamped somewhere on the head. Along with this stamping, a color-coding system has been configured to assist in helping identify the sprinkler head temperature rating. The coding is as follows:



Rating	Temperature	Color
Ordinary	135-170	Uncolored
Intermediate	175-225	White
High	250-300	Blue
Extra high	325-375	Red
Very extra high	400-475	Green
Ultra high	500-575	Orange
Ultra high	650	Orange

As you look at the chart above you will notice that an ultra-high rating is listed twice! Should you find that the system you are working on has a color-coded sprinkler head with orange paint on it, make certain you match the correct temperature. Replacing a sprinkler head with the wrong temperature is asking for trouble! Should another fire occur in this facility where the improper temperature-rated head has been used, the head will either not activate in a timely manner, allowing the fire to gain a substantial headway on the system, or it will activate sooner than required and possibly cause excessive water damage and quite possibly have an impact on the manufacturing process. In any case, always look to see that the temperature on the head that is being replaced matches the one replacing it.

–Prepared by *Russell Merrick*