

Shutgun Fact Sheet

With the amount of sprinklers in AUS alone, sprinkler activations are going to occur. Information from the Chief Fire Officers Association shows that more than 70 million sprinkler heads are fitted every year across the globe.

Sprinkler heads, contrary to what is often portrayed in the movies, are individually controlled. Each closed-head sprinkler is held closed by either a heat-sensitive glass bulb or a two-part metal link held together with fusible alloy such as Wood's metal and other alloys with similar compositions. The glass bulb or link applies pressure to a pip cap which acts as a plug which prevents water from flowing until the ambient temperature around the sprinkler reaches the design activation temperature of the individual sprinkler. Because each sprinkler activates independently when the predetermined heat level is reached, the number of sprinklers that operate is limited to only those near the fire, thereby maximising the available water pressure over the point of fire origin.

The standard sprinklers release 20 to 30 gallons per minute of water on activation. This is equivalent to filling the average bathtub or 45 gallon drum in 2 minutes. This will suppress the fire quickly but once the fire is out this amount of water per minute can do an amazing amount of damage. Building owners/managers as well as insurance companies who have to pay for the repairs or worry about business continuity want the sprinklers shut off as soon as possible. The fire-fighter has two options: one is to look for the building shut off valve and hope that it can be found and it is not behind a locked door or to use a rubber or wooden wedge to seal off the sprinkler head. This is not commonly used in the UK.

The problem with shutting off the building sprinkler control valve is twofold:

1. The building or zone is no longer protected. Should a fire rekindle or start elsewhere the building is likely lost and lives endangered.
2. The water continues to be released while looking for the shut off valve.

The other issue with using the wedge is that this is a difficult process to get right. They will not fit the recessed type of sprinkler head, which is very common in finished spaces and if the fire rekindles the sprinkler head will not function.



The device that Technicraft Product Design Inc. has developed and is offered for sale negates these problems. The Shutgun is compact, easy to use one handed, will fit most sprinkler heads, even recessed ones and incorporates a fusible link that if a fire rekindles will release and allow the sprinkler to re-activate.

Not only fires trigger sprinkler heads, accidental activation is a common occurrence especially in areas with high traffic flow or rambunctious behaviour. Students in residences regularly hang washing in the sprinkler heads and break the vial activating the head. People moving office furniture or other things can hit the head and activate it. Even if a system is being drained after activation the Shutgun will prevent leakage from the head while this process happens.

A cost for a Shutgun per floor is a very low investment for the savings that would occur in the event of an activation.