

# *Autoquench*

## Datasheet

### Residential Sprinklers – Architects design notes

**The best time to plan for the installation of residential sprinklers is at the design stage. From our experience of designing and installing residential sprinklers, we have short-listed the main points that we think should be adopted.**

1. **Consult with your local Water Authority at an early stage**, and tell them of your plans to fit fire sprinklers. Some Water Authorities may have specific requirements that you must comply with, and many require notification that residential fire sprinkler systems are to be fitted. We can advise flow rates required for your project.
2. Autoquench always recommend **a separate non-metered water supply** dedicated to the Sprinkler System. The water pressure and flow calculations will establish the size of feed pipe required. For most domestic sprinklers the size will be 32mm O/D, but may be larger for residential homes or when supplying more than one residence.
3. Consideration should be given to the point of entry, and the pipe runs. The first connection is a manifold valve set, normally mounted vertically, with the pipe work then extending vertically to at least the first floor for partial systems, and into the attic space for full systems. **Access to the valve set is required** for periodic servicing.
4. Internal pipe work needs to be concealed, and **notching of joists should be minimised**. Distribution pipe is predominantly 28mm O/D Copper or 32mm O/D CPVC.
5. The mechanical pipe work has a **first fix before the ceilings are plaster boarded**, and preferably before the floorboards are fixed. During this first fix, the concealed sprinkler heads are fitted, and the entire pipe work is pressure tested.
6. **Sprinkler pipe work should have priority** and be installed prior to other plumbing and pipe work for central heating, and prior to any electrics.
7. **Sprinkler heads often require to be placed in the centre of a room**. Light fittings should be set off centre if possible to allow the sprinkler heads to have preference. This is particularly important on stairwells and landings, where a good distribution is required. The sprinkler heads can be offset, but this may involve the fitting of additional sprinklers.
8. **Concealed sprinkler heads are neat and unobtrusive**, but will look neater if spacings are equal and are on centre lines of ceilings where possible.
9. If a sprinkler alarm package is to be installed, the internal sounder should be sited in a central position, **so that it can be heard throughout the premises**. Any outside bell/strobe units should be sited on the front of the property and attached to the roof soffit at high level.
10. We can provide quotations and designs from layout drawings. **Contact us if you require any further advice or a Residential Fire Sprinkler data pack.**