

AquaSAFE™ Quick Reference Guide

General Installation

This installation guide is meant for reference only and does not intend to cover all applications or specific construction features. Always follow the requirements of NFPA 13D, sprinkler listings and local codes and ordinances. If in doubt about any requirements, contact the Authority Having Jurisdiction (AHJ).

- Always review the design prints and walk the job to verify before starting the installation.
- Mark sprinkler mounting locations — indicate sprinkler node (e.g., H13) from the design print.
- **Sprinkler Mounting Details** — Correct placement of the ProPEX® Sprinkler Adapter depends on the type of sprinkler head and the thickness of the ceiling material being used. Refer to the design prints for proper mounting dimensions. Always field verify with escutcheons or cover plates to ensure proper fit (measure and/or test with ceiling material).
- **Tubing Support** — Only use Uponor Tube Talons or other supports intended for plastic pipe.

Horizontal Runs - unsupported	Horizontal Runs - supported	Vertical Runs
Every 32 inches	Every 72 inches	Every 4 to 5 feet; at each floor with a mid-story guide

- **AQUASAFE Looped Systems** allow as many brass ProPEX tees as necessary between sprinkler adapters to connect cold-water plumbing fixtures. EP fittings and multi-port tees may be used after branching off the sprinkler loop. Refer to the AQUASAFE Installation Guide for more information.
- **AQUASAFE Network Systems** only allow one brass ProPEX tee between sprinkler adapters. Refer to the AQUASAFE Installation Guide for more information.
- **Pendant Sprinkler** deflectors are typically mounted 1 inch from the face of the ceiling. Refer to Reliable® Bulletin(s) for specific sprinkler listings and mounting requirements (www.reliablesprinkler.com).
- **Sidewall Sprinklers** are typically mounted between 4 and 6 inches from the ceiling, but may be located up to 12 inches from the ceiling to avoid obstructions. Design prints and hydraulic calculations must reflect mounting positions between 6 and 12 inches.
- **Sprinkler Deflectors** — Always mount parallel to the plane of the ceiling.
- **Sloped Ceilings** — Refer to Reliable Bulletin 035 for specific flow, pressure, coverage and listing information when installing sprinklers in sloped ceiling applications.
- **Heat Sources** — Maintain 12-inch spacing between Uponor AquaPEX® tubing and heating ducts or recessed lighting fixtures. Refer to the table on the reverse side for minimum sprinkler spacing from heating ducts, diffusers and other heat sources.
- **Attic Spaces (Insulation)** — Ensure adequate insulation when running tubing in attic spaces. A good rule of thumb is 4 inches of additional blown-in insulation or one extra layer of batt insulation. Refer to NFPA 13D, Annex A, for additional information.
- **Submit Field Modifications** to Uponor with marked up design prints. Some changes may require additional hydraulic calculations. Contact Uponor with any questions.
- **Flow Test Verification** — Uponor requires submission of a Flow Test Verification Form for every installation. Refer to your AQUASAFE Installation Guide for instructions. Be sure to use the proper test orifice. Forms are available for download at www.uponor-usa.com.
- **Affix Warning Sign** adjacent to the main shutoff valve. See NFPA 13D, 6.3 (5).

Sprinkler Spacing

Typical spacing requirements are shown in the table below. Always refer to the NFPA 13D Standard, the Reliable Sprinkler Bulletins, or contact Uponor for special requirements.

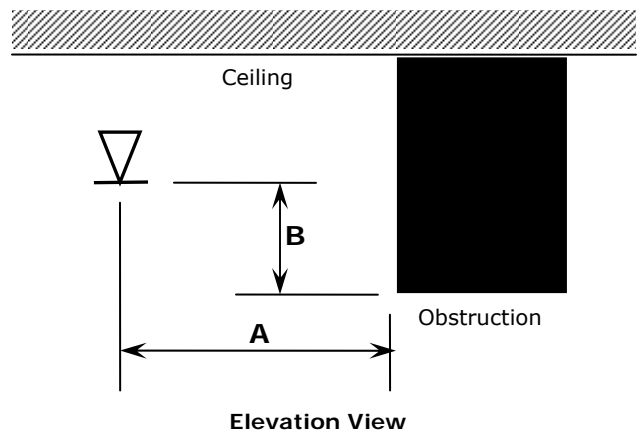
Minimum spacing between sprinklers:	8 feet (NFPA 13D, 8.1.3.1.3.2 for sloped ceilings; Reliable Sprinkler Bulletins (www.reliablesprinkler.com))
Maximum spacing between sprinklers:	Design spacing noted on plan (e.g., RFC43-16 indicates 16-foot design spacing, therefore max distance between sprinklers is 16 feet)
Minimum distance from wall:	4 inches
Maximum spacing away from a wall:	½ the design spacing noted on plan (e.g., RFC43-16 indicates 16-foot design spacing, therefore max distance from wall is 8 feet)
Spacing from non-continuous obstructions:	36 inches from the center of the obstruction (NFPA 13D, 8.2.5.2.1) unless 8.2.5.4 can be met regarding the distance from the deflector to the bottom of the obstruction (see Continuous Obstructions below)

Continuous Obstructions

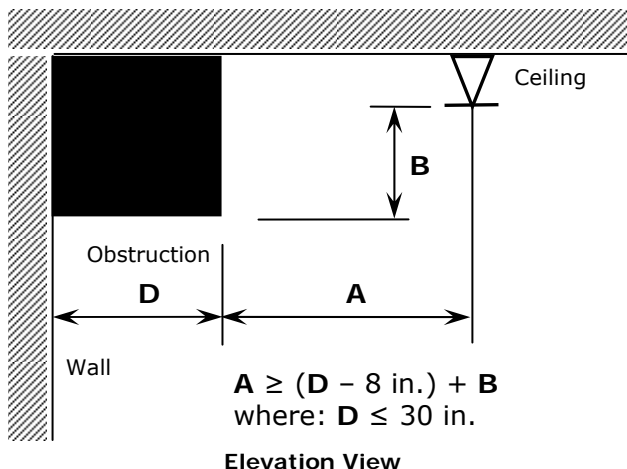
From: NFPA 13D, Table 8.2.5.4.2, Position of Sprinklers to Avoid Obstructions to Discharge

(Refer to Figure 8.2.5.4.2 at right.)

Distance from Sprinklers to Side of Obstruction (A)	Maximum Allowable Distance of Deflector Above Bottom of Obstruction (in.) (B)
Less than 1' 6"	0
1' 6" to less than 3'	1
3' to less than 4'	3
4' to less than 4' 6"	5
4' 6" to less than 6'	7
6' to less than 6' 6"	9
6' 6" to less than 7'	11
7' and greater	14



From: NFPA 13D, FIGURE 8.2.5.4.2, Position of Sprinkler to Avoid Obstructions to Discharge



From: NFPA 13D, FIGURE 8.2.5.4.3
Obstructions Against Walls
(i.e.: Pendant sprinkler with respect to a soffit)

Heat Sources

From: NFPA 13D, Table 7.5.5.3, Minimum Distances For Ordinary Temperature Residential Sprinklers

Heat Source	Minimum Distance from Edge of Source (in.)
Side of open or recessed fireplace	36
Front of recessed fireplace	60
Coal- or wood-burning stove	42
Kitchen range	18
Wall oven	18
Hot air flues	18
Un-insulated heat ducts	18
Un-insulated hot water pipes	12
Side of ceiling- or wall-mounted hot-air diffusers	24
Front of ceiling- or wall-mounted hot-air diffusers	36
Hot-water heater or furnace	6
Light fixture (0 W – 250 W)	6
Light fixture (250 W – 499 W)	12

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