



**RESIDENTIAL FIRE
SAFETY SYSTEMS**

REFERENCE GUIDE

AquaSAFE™ Quick Reference Guide

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).

Jobsite Review

Always review the design prints and walk the job to verify before starting the installation.

Sprinkler Locations

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 Supports

Only use Uponor Tube Talons (F7050750 or F7051000) or other supports intended for plastic tubing. See **Tubing Support Table** at right.

AquaSAFE Looped Systems

Use engineered polymer (EP) or brass ProPEX tees between sprinkler adapters to connect cold-water plumbing fixtures. It is acceptable to use multi-port tees after branching off the sprinkler loop. Refer to the AquaSAFE Installation Guide for details.

Pendant Sprinklers

Typically mount 1 inch from the face of the ceiling. Refer to the sprinkler manufacturer’s guideline installation bulletin(s) for specific sprinkler listings and mounting requirements.

Sidewall Sprinklers

Typically mount between 4 and 6 inches from the ceiling; 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 the sprinkler manufacturer’s guideline installation bulletin(s) for specific flow, pressure, coverage and listing information when installing sprinklers in sloped ceiling applications. At least one sprinkler must be installed within 3 ft. vertically from the ridgeline.

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. Refer to NFPA 13D, Annex A, for additional information or Uponor AquaSAFE Attic Insulation Guidelines.

Field Modifications

Submit marked-up design prints to Uponor Design Services at design.services@uponor.com. Some changes may require additional hydraulic calculations.

Flow Test Verification

Uponor recommends submission of a Flow Test Verification Form for every installation. Refer to the AquaSAFE Flow Test Instruction Sheet available on www.uponorpro.com. Be sure to use the proper test orifice.

Warning Sign

Affix adjacent to the main shutoff valve. See NFPA 13D, 2013 Edition, 6.3.4.

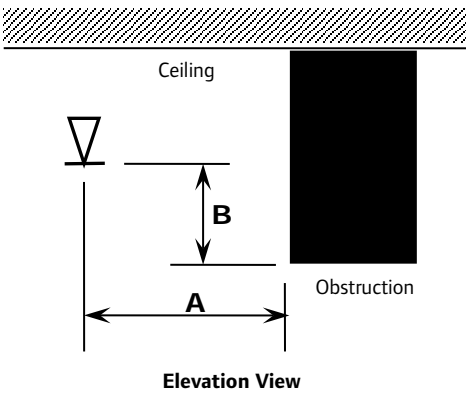
Sprinkler Spacing

See **Spacing Requirement Table** on the reverse side. Always refer to the NFPA 13D Standard, the sprinkler manufacturer’s guideline installation bulletin(s) or contact Uponor Design Services at design.services@uponor.com for special requirements.

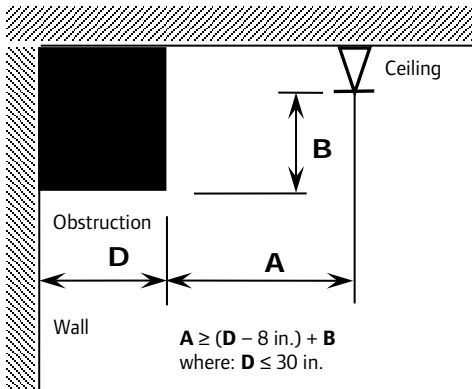
Tubing Support Table

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

Continuous Obstructions



From: NFPA 13D, 2013 Edition, Figure 8.2.5.4.2,
Positioning of Sprinkler to Avoid Obstruction to Discharge



From: NFPA 13D, 2013 Edition, Figure 8.2.5.4.3,
Positioning of Sprinkler to Avoid Obstruction Against
Walls (i.e.: pendent sprinkler with respect to a soffit)

Heat Sources

Refer to **NFPA 13D, 2013 Edition,**
Table 7.5.6.3 at right.

Spacing Requirement Table

Minimum spacing between sprinklers:	Dependent on sprinkler (8 ft. or 9 ft. is typical) Verify with the manufacturer's sprinkler guideline bulletins. Refer to NFPA 13D, 2013 Edition, 8.1.1 for sloped ceilings.
Maximum spacing between sprinklers:	Per design spacing noted on plan (e.g., spacing can be 12x12 up to 20x20)
Minimum distance from wall:	Pendent sprinklers can be no closer than 4 inches from wall
Maximum spacing away from a wall:	½ the design spacing noted on plan (e.g., spacing can be 12x12 up to 20x20, therefore max. distance from wall could be from 6' up to 10')
Spacing from non-continuous obstructions:	36 inches from the center of the obstruction (NFPA 13D, 2013 Edition, 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)

From: NFPA 13D, 2013 Edition, Table 8.2.5.4.2, Position of Sprinklers to Avoid Obstructions to Discharge (Refer to Figure 8.2.5.4.2 at left)

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, 2013 Edition, Table 7.5.6.3, 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 Q – 250 W)	6
Light fixture (250 W – 499 W)	12

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