

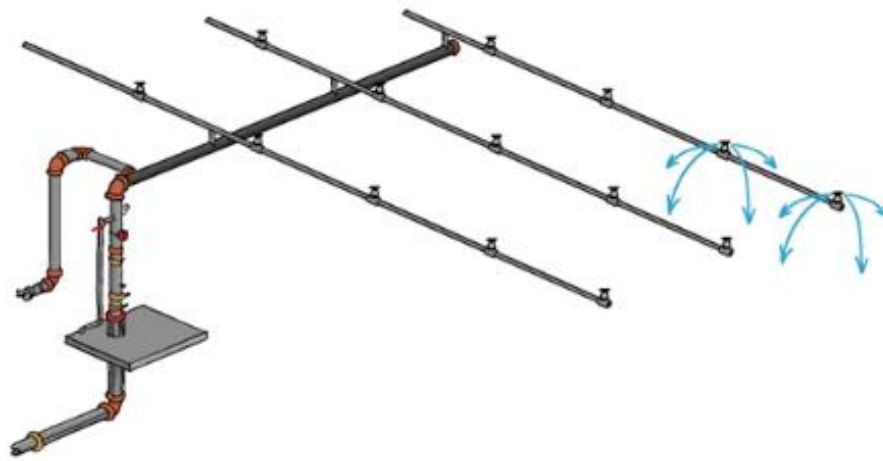
# BENEFITS OF USING TREE SYSTEMS

SUPPRESSION SYSTEM TYPES & ARRANGEMENTS SERIES BY MEYERFIRE UNIVERSITY | FEBRUARY 2023

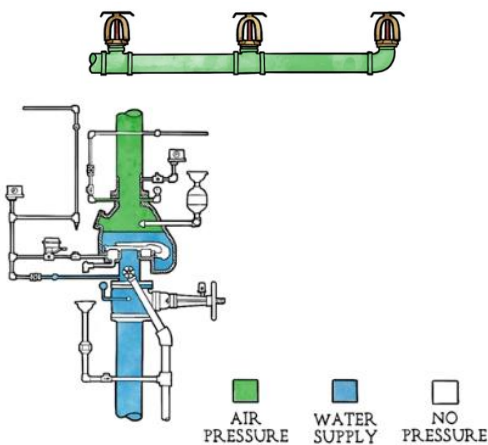
## SUMMARY

Fire sprinkler systems that are configured in a **tree** layout is the oldest and simplest of the three arrangements. Benefits to tree layouts include:

- **Efficient use of material:** there is no redundant pathways for pipe.
- **Simple:** tree systems can be easily recognized, understood, and don't require as much complexity or nuance to assemble.
- **Direct path for waterflow:** because water can only assume one direct path between the supply and an open sprinkler, the water-delivery time, or "dry trip time" tends to be better for dry and pre-action systems that are in a tree configuration versus a loop or gridded system.
- **Easier to design & calculate:** because of the simpler layout, tree systems often have a more unambiguous remote area, require less iterations for hydraulic calculations, and often have simpler hydraulic calculations.

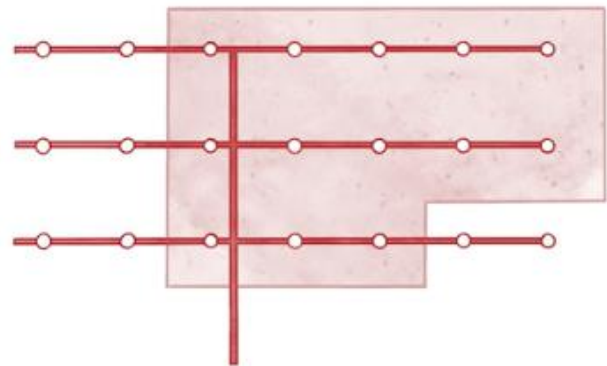


Two Sprinklers Operating in a Tree System



Normal State of a Dry or Pre-Action System

(direct-pathway in a tree system can improve water-delivery time)



Simpler Hydraulic Calculations

(tree systems can simplify hydraulic calculations with less iterations)

## VIDEO LINK

[www.meyerfire.com/university/benefits-of-a-tree-system](http://www.meyerfire.com/university/benefits-of-a-tree-system)

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