WHAT IS HYDROKINETICS?

SERIES BY MEYERFIRE UNIVERSITY | MARCH 2023

SUMMARY

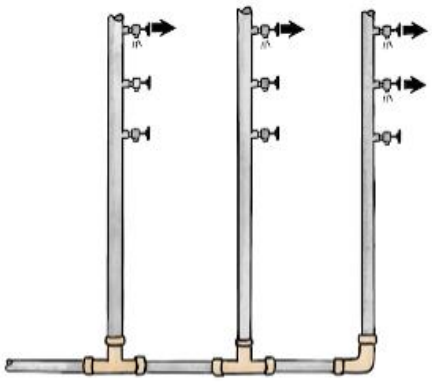
Hydrokinetics is the study of **fluids in motion**. In our last series on hydrostatics, we studied the relationship between pressure and elevation, and how energy is stored in a system. With hydrokinetics, we're evaluating these relationships but with fluids in motion.

The term **hydrokinetics** is a combination of "hydro" (water) and "kinetics" (motion). The fundamentals that come from hydrokinetics play a major factor in friction loss, which is perhaps the most critical concept in fire suppression system design.

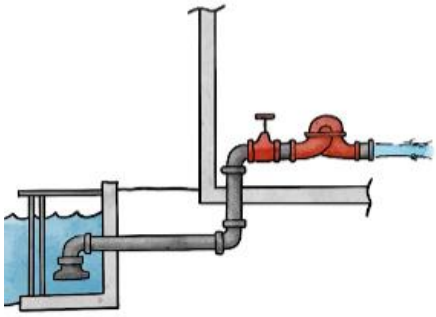
Examples of hydrokinetic situations that we'll explore in this series includes:

- Relationship between flow and pressure at different points in a system
- How energy is stored and adapted at different points in a moving system
- How relationships between elevation, pressure, and movement are quantified

Activated Sprinkler
(Hydrokinetics involves the understanding of flow through open orifices, and relationship between potential and kinetic energy)



Flow Through Standpipe System
(Hydrokinetics involves the understanding of flow, and the energy change from potential to kinetic energy)



Pressure (Energy) Added by Movement
(Fire pumps transfer energy in electrical or fuel form into movement, which imposes a pressure onto a system and effectively performs work/transfers energy into that system)

VIDEO LINK

www.meyerfire.com/university/principles-of-hydrokinetics

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