

# Fire protection hydraulics

[Engineering](#)



**ASSIGN  
BUSTER**

The paper " Fire Protection Hydraulics " is a great example of an essay on engineering and construction. In fighting a fire, the most important tools are the hose and the nozzle. The ability of the firefighter to effectively use the nozzle and the hose to discharge water to the fire is controlled by the ease at which they reach the fire stream and how accurately they penetrate the fire stream. The length of the hose plays a great role in the ability of the firefighters to reach the fire stream as a longer hose would definitely reach the fire stream faster than a shorter one. The use of a long hose is very helpful as this would reduce the risk of the firefighter of being affected by the fire. Stream penetration is a phenomenon that refers to the precise and accurate act of pumping water to a fire stream. The ability of the firefighter to reach the fire stream is determined by how they effectively penetrate the fire stream. The firefighters must also have the required expertise to penetrate the fire by placing and directing the hose and nozzle at the right angle of penetration (Brannigan& Corbett, 2008). For a firefighting process to be effective, the stream penetration must be qualitative enough. The fire stream penetration could best be improved by moving the nozzle slightly away from the building, this act would help to reduce the angle of deflection while improving the angle of penetration of the fire stream. If the nozzle and hose are placed in a way that the building deflects the water that should be used in reaching the fire stream, this would reduce the penetrative power of the firefighting process, hence the nozzle and hose must be well positioned in order to aid the stream penetration process.