

Vibration analysis of blocked circular pipe flow

Abstract

Pipes are found in almost all buildings and constructions where they are used to convey fluid to a desired location. Liquid containing foreign objects and impurities will sometimes create unintentional built up or clog obstruction along the interior surface of the pipeline. This phenomenon may affect the fluid flow within the pipe. This work analyzed the impact of different blockage sizes inside a clear Polyvinyl Chloride (PVC) circular pipe using vibration measurement. Observations were made on the fluid flow patterns during the flow. This work encompasses the correlation between blockage thickness inside a circular pipe and vibration parameters.