

## **Effect of Blockage Size on Pipe Vibration**

### Abstract

Circular pipes are widely used to convey goods to a desired location. Flow inside a pipe needs to be smoothed and unobstructed to ensure an optimize flow of particle. However, pipes are prone to clogging or blocking due to deposition of unwanted impurities and external objects. Built up inside a circular pipe will affect the flow velocity and pressure within the pipe. This paper presents a method of assessing blockage inside a pipe by using vibration analysis. The effect of blockage was observed through changes in pipe vibration response and also turbulence intensity. The changes in vibration parameters were identified together with the reduction of flow area due to increasing blockage size.

Keywords: Blockage, Pipe Vibration, PVC Pipe