

## **VIBRATION CONTROL OF A VERTICAL TURBINE PUMP BASE STOOL STRUCTURE BY OPTIMAL STRUCTURAL MODIFICATION**

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### **Abstract**

Vibration is one of the acute problems for the systems under dynamic loading conditions. Vertical Turbine Pump (VTP) is used for pressurizing industrial liquids. A cylindrical housing which is covering the pump do vibrates because of faulty practices of motor or the pump itself. The operating frequency of most of the VTP is around 100Hz and by increasing the stiffness, the systems natural frequency increases. Thus the chances of vibration in the higher frequency zone are reduces and for the subsequent modes the resonance chances are reduces. Here an attempt has been made to find the optimal stiffness rise for vibration control of a vertical turbine P19501 pump used for cooling tower of CNA (concentric nitric acid) III plant.

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