

PIPING SYSTEM SIMULATOR

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ABSTRACT

This project is aim to develop a computer program to analyze and design complex piping system and perform all the necessary calculation to determine friction losses and pump requirement. This simulator allows user to input the fluid type, the fluid temperature, the flow rate, the pipe size, the pipe material and the pipe length. The simulator will then output detailed information for each section, including: the velocity, the Reynolds number, the Moody friction factor, the pipe friction factor and the pipe head loss. These calculations, when done manually, are complex, time-consuming and tedious. This simulator saves time and minimizes the chance for costly errors.

To allow you to understand about this report is systematical way, I am going to divide this report into 4 parts, i.e. introduction, construction, analysis and results. To conclude the whole project, the conclusion section will be made to summarize the whole project and report that I have done.