

Design of solar collector testing facility (water)

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Abstrak

This final project was designing a solar collector facility using water as heat transfer fluid. The design of the facility is according to ASHRAE Standard 93-2003 'Methods of testing to determine the thermal performance of solar collectors'. The system had to be designed with moveable rack to adjust easily to an appropriate testing site. In addition, the frame is also designed to can be adjusted with different variables tilt angles as 00,300,450,600 for ASHRAE Standard testing purposes. In this project, the student only makes a design of solar collector facility as visualization reference using the drawing software (solidworks). The supporting Instrumentation's specification and manufacturer info has been provided for a real assembly guide later. Lastly, the important parameters design concepts and cost estimates for making this facility will be explained through this report.