"SIMULATION OF COMPACT TYPE OF
CONDENSER HEAT EXCHANGER DESIGN
USING DELPHI 7 PROGRAMME LANGUAGE"

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ABSTRACT

The understanding of Compact type of condensor heat exchanger that consists of Circular Tube Continuous Fin and Circular Tube Circular Fin isn’t maximal, because of the limitation of study in Heat Transfer lesson.

The using software as an education aid tool is the effective choice, because the software can help to understand faster, economize the time for finishing the calculation, database organizing, and repeating iteration process. So that making easy the projector to project the Compact type of condensor heat exchanger until getting the project result which is suitable with the available standard. The making of this software consists of some stages, such as: the literature of system project study, the making and evaluation which purpose to know the performance of this software. The software is made of using Delphi 7 Programme Language.

In using condensor with Cf 8.72 type of circular fin has the bigger overall heat transfer coefficient than another type, because of the smaller inside diameter. The biggest overall heat transfer coefficient is gotten by using Cf 8.72 type of circular fin, 4 passes, and refrigerant R22. And for continuous fin, the biggest overall heat transfer coefficient is gotten by using 7.75-5/8 T type, 4 passes, and refrigerant R22. For circular fin, the biggest overall efficiency is gotten by using Cf 8.72 c type, whereas for continuous fin is gotten by using 7.75-5/8 T type.

Keywords: Overall Heat Transfer, Delphi, Compact Heat Exchanger, Heat Transfer, Circular fin, Continuous fin, The coefficient of convection