

Cycle_D Version 4.0: Theoretical Vapor Compression Cycle Design Program

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This paper presents Version 4.0 of the CYCLE_D: NIST Vapor Compression Cycle Design Program. The model can simulate a basic subcritical or transcritical refrigeration cycle, both with or without a liquidline/ suction-line heat exchanger. In addition, the model can simulate a subcritical two-stage economizer cycle, a subcritical three-stage economizer cycle, and a subcritical two-stage compression cycle with intercooling. The model is a user-friendly tool for screening the performance of single-component refrigerants and refrigerant mixtures.