Visvesvaraya Technological University, Belgaum.

A PROJECT REPORT ON :

IMPROVEMENT OVER EXISTING VAPOUR COMPRESSION REFRIGERATION TEST RIG

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ABSTRACT

A refrigerator uses the evaporation of a liquid to absorb heat. The liquid, or refrigerant, used in a refrigerator evaporates at an extremely low temperature, creating freezing temperatures inside the refrigerator .The Second Law of Thermodynamics states that heat will not pass from a cold region to a warm one without the aid of an "external agent". Therefore, a refrigerator will require this "external agent", or energy input, for its operation.

The subject of refrigeration and air conditioning has evolved out of human need for food and comfort, and its history dates back to centuries. The history of refrigeration is very interesting since every aspect of it, the availability of refrigerants, the prime movers and the developments in compressors and the methods of refrigeration all are a part of it. The term "refrigerator" was coined by a Maryland engineer, Thomas Moore, in 1800. Moore's device would now be called an "ice box" -- a cedar tub, insulated with rabbit fur, filled with ice, surrounding a sheet metal container. Moore designed it as a means for transporting butter from rural Maryland to Washington, DC. Its operating principle was the latent heat of fusion associated with melting ice.