

**ANALYSIS OF COLD STORAGE CAPACITY OF 5 TONS
IN INDEPENDENT GENERATION PRODUCTION
COOPERATIVE**

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ABSTRACT

Shrimp are animals that live in waters, especially rivers, seas, or lakes. Shrimp can be found in almost all large puddles of fresh water, brackish water, and salt water at varying depths, from near the surface to several thousand meters below the surface. After being caught, the shrimp must be given a certain treatment to inhibit the growth of these bacteria. One way that can be done is to put the shrimp in a cold container or room, namely cold storage. The research objectives are . Designing a cold storage capacity of 5 tons with a temperature of -20 °C Making a cold storage capacity of 5 tons with a room temperature of -20 °C Calculating the time to reach a temperature of -20 °C cooling load and engine COP. After being tested to run the machine, the cooling time of an empty cold storage room during the day with a temperature of 33 °C to -20 °C takes 1 hour 5 minutes 20 seconds. The total load of internal cooling and external cooling is 5.25 KW, the calculation of the engine COP of this tool is 1.43. With cold storage machine electricity consumption in one month if run for 24 hours non-stop reaches Rp. 4,157,099.

Keywords : Shrimp and fish, Capacity, cooling load, cold storage