

VACOOL (IDT - B1)

Problem Statement

Farmers struggle to keep milk fresh for the 6–8 hours required before it reaches collection centers because chilling facilities are either too far away or too costly to access. As a result, a significant portion of milk spoils before processing, causing financial losses, higher wastage, and weakening farmers' credibility with buyers, making this a recurring barrier that affects farmers' income and overall livelihood stability.

Team Members

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Solution

Rural dairy farmers face a major challenge in keeping milk fresh for the 6–8 hours required before it reaches consumers, as chilling plants are either too expensive or located far away. This leads to milk spoilage, financial losses, and reduced trust from buyers. To solve this recurring problem, our team has developed an innovative double-insulated stainless steel milk container designed specifically for farmers in warm and remote regions. Made from high-grade 304 stainless steel, it ensures hygiene, durability, and easy cleaning. The double-wall vacuum insulation minimizes heat transfer and maintains milk temperature for several hours without electricity or mechanical chillers. This helps prevent bacterial growth and preserves quality during transport. Unlike plastic or aluminum cans, this container is long-lasting and can withstand rough handling. By using this solution, farmers can reduce wastage, maintain freshness, increase income, and adopt a cost-effective, environmentally friendly alternative to traditional chilling systems.

Project Team



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