

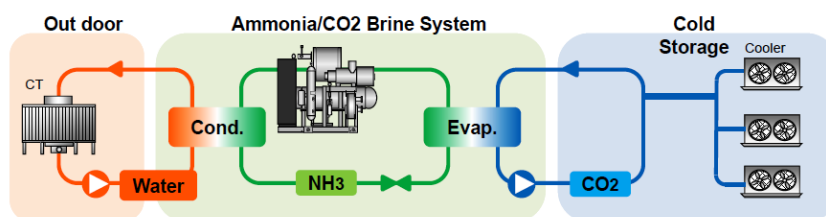
Summary of study: Refrigeration system in a food processing unit: Unit - 2

Industry : Food processing

Unit profile : A seafood processing unit located in Bhimavaram (Andhra Pradesh)

Technology :

- $\text{NH}_3\text{-CO}_2$ brine refrigeration system



Application : Energy savings by replacing the existing Freon-based cold storage system with $\text{NH}_3\text{-CO}_2$ brine refrigeration system

Year of investigation: 2018

Key features:

- $\text{NH}_3\text{-CO}_2$ brine refrigeration system that brings energy saving, high safety and easy maintenance; replaces ozone-depleting Freon-based system
- New screw compressor
- Semi-hermetic IPM motor
- Flooded evaporator
- Double economizer
- Automatic operation

Energy and cost saving:

Details	Existing	Recommended
Cold storage system	Freon-based cold storage system	$\text{NH}_3\text{-CO}_2$ brine refrigeration system
Energy saving potential		High