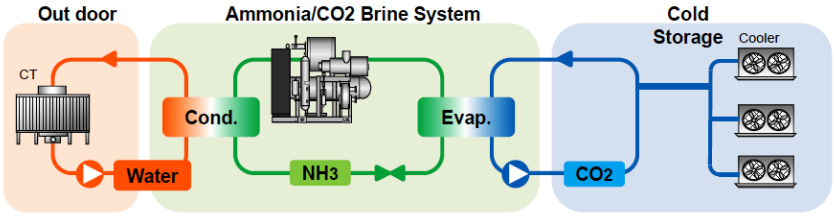
Summary of study: Refrigeration system in a food processing unit: Unit - 6

Industry : Food processing

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

Technology :

- NH_3-CO_2 brine refrigeration system



Application : Energy savings by installation of NH_3-CO_2 brine refrigeration system in place of the existing R404-based system in the plant's cold storage facilities

Year of investigation: 2018

Key features:

- NH_3-CO_2 brine refrigeration system that brings energy saving, high safety and easy maintenance
- New screw compressor
- Semi-hermetic IPM motor
- Flooded evaporator
- Double economizer
- Automatic operation

Energy and cost saving:

Details	Existing	Recommended
Cold storage system	R-404 based cold storage systems (2400 tonnes capacity)	NH_3-CO_2 brine refrigeration system
Energy saving potential		High (25–30%)