

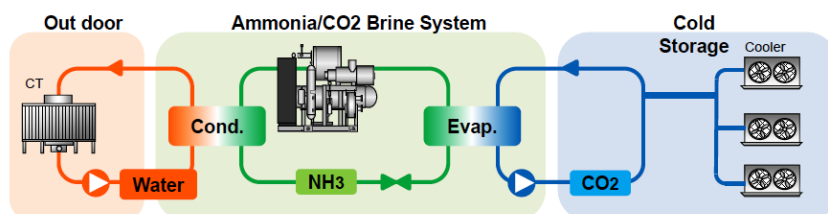
Summary of study: Refrigeration system in a food processing unit: Unit - 1

Industry : Food processing

Unit profile : A food processing unit located in Bhimavaram (Andhra Pradesh) engaged in production, processing and preservation of seafood and other food products

Technology :

- NH_3 - CO_2 brine refrigeration system
- Water source heat pump system



Application : Energy savings by (1) replacing the existing R 404A cold storage system with NH_3 - CO_2 brine refrigeration system; (2) installing water source heat pump system in place of existing HSD-fired boiler

Year of investigation: 2018

Key features:

- NH_3 - CO_2 brine refrigeration system that brings energy saving, high safety and easy maintenance, with features including
 - New screw compressor
 - Semi-hermetic IPM motor
 - Flooded evaporator
 - Double economizer
 - Automatic operation
- Water source heat pump system in place of existing HSD-fired boiler



Energy and cost saving:

Details	Existing	Recommended	Energy saving potential
Cold storage system	R 404A cold storage system	NH_3 - CO_2 brine refrigeration system	High
	HSD-fired boiler	Water source heat pump system	High