



*Application*

24,000 sq. ft. in-house freezer capability

*Customer*

Redwood Farms Meat Processors, located in the heart of "Pork Paradise" Estherville, Iowa, providing custom-cut quality pork products.

*Challenge*

Redwood Farms Meat Processors was leasing cold storage and did not have the control they needed to regulate the temperature of their products with their current storage capabilities.

*Solution*

The general contractor for the project contacted their "go-to" refrigeration contractor, St. Cloud Refrigeration in St. Cloud, Minnesota, to discuss best possible options. As Todd Lambrecht from St. Cloud Sales put it, "We immediately saw a perfect fit for using a Hillphoenix industrial CO<sub>2</sub> refrigeration solution." Todd's first sell of the idea was to the GC, who was impressed overall, particularly with the energy efficiency of the proposed CO<sub>2</sub> system. Todd and the GC then took their message to Redwood Farms Director of Construction, Dallas Einck, who reacted positively, feeling the benefits of the CO<sub>2</sub> system met their stated goals. Affordability driven by the system's energy efficiency, the inherent safety of using CO<sub>2</sub> versus ammonia, and the "natural" refrigerant characteristics (GWP=1; ODP=0) of CO<sub>2</sub> making it

a friend of the environment all worked together to convince the Redwood Farms ownership that they had found their solution.

The system amounted to an outdoor mechanical enclosure housing a CO<sub>2</sub> refrigeration skid capable of supplying 150 tons of refrigeration and featuring:

- Bitzer reciprocating compressors
- Guntner industrial ceiling-hung evaporators
- Guntner adiabatic gas cooler/condenser with hydroBLU controls
- Emerson Site Supervisor computer controls allowing complete process control and communication of process checkpoint status data directly to St. Cloud who monitors for proactive maintenance purposes.

The installation went smoothly, commencing in March 2021 and culminating with system start-up in June 2021

### *Result*

System installation began in December 2020 with start-up on April 12<sup>th</sup>, 2021. Feedback from HelloFresh regarding the installation experience and system operational performance to date has been quite positive, according to Ryan Glaze, vice president of installation for Almco. “They’ re happy campers” , said Ryan, “and so are we!” “The simplicity of the overall system design makes for fewer maintenance issues and faster resolution” , he added.