

# **FIXED GRID**CASE HISTORIES

**JAEGER**—AERATION

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#### **PROJECT CASE STUDY**

Nº107

## Rantoul IL

This industrial facility is a new pork processing facility that will start operations in 2023. This advanced pork processing facility is energy efficient inside the processing plant and outside the wastewater facility.

The plant is a two-stage facility that uses an anaerobic lagoon as the first stage design with methane gas recovery. After the first stage, the water flows into one of three cyclic aeration basins for TN control.

OBJECTIVES

Easy Installation of High-Capacity Aeration Diffusers and Blower System Coordinate Installation and Startup Issues Prior to Going Online Efficiency of The Aeration with The Fewest Number of Diffusers

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PRODUCTS USED

Ammonia < 1.0 ppm TN - <10 ppm Strip Diffuser

SUMMARY

The project scope was a CMAR design with the engineer and contractor. **Jaeger Aeration** supplied the equipment submittal, equipment supply, and advice on how to provide installation support.

Energy efficiency is a primary factor in the selection of the **OxyStrip** diffuser and the screw blower aeration system. The engineering firm installed a methane recovery system which wil reduce the net carbon use of the plant to achieve the *net zero goal*.



#### FINAL ASSEMBLY







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# **JAEGER**—AERATION

#### **PROJECT CASE STUDY**

Nº108

## **Center CO**

Industrial plant expansion required increased WWTP capacity. The original plant is an "egg beater" floating aerator design that had cold weather challenges and poor oxygen transfer. The client wanted to provide higher oxygen transfer efficiencies and a turnkey operation supply for the expansion.

Vertical turbine-type floating aerators froze in the cold temp and winds of Colorado. In addition, the lower SOTE% became an operational concern for the cost of operation. System supply as a complete package with support was important since the site is remote without technical services.

OBJECTIVES

PRODUCTS USED

Reduce Energy Costs
Stainless Steel Materials

TN < 10 ppm

TP < 2.0 ppm

TSS < 5 ppm

**BNR Performance for TN & TP** 

Complete system supply and SCADA

Fine Bubble Diffusers vs. Floating Aerators

PERFORMANCE

OxyProcess

OxyStrip

**Dual Air Control** 

OxyMax

SUMMARY

Jaeger Aeration was selected by the Client and consulting Engineer for supply and project management for the system expansion. We used our expertise and SBR technology to supply the complete system including the blowers, air distribution system with OxyStrip 2-meter diffusers, and the OxyMix with the KSB Amaprop mixer for the application.



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