



# Ideal Fish



## About Ideal Fish

***“Ideal Fish is a state-of-the-art recirculating aquaculture systems company dedicated to bringing fresh seafood to local markets”***

At Ideal Fish, the Branzino, silver-skinned fish native to the eastern Atlantic Ocean, are handled and treated like royalty from the time the fingerlings arrive until the time they mature. Grown in optimal conditions, the Branzino are never exposed to external pathogens or pollutants. Therefore, they are free of antibiotics, chemicals or growth hormones. Being grown in Waterbury, Connecticut, the Branzino can be grilled, roasted, steamed and ready for customers to eat in just a short amount of time!





## The Challenges

During the cold weather months, Ideal fish could not maintain the optimal water temperature in the tanks for the grow operation due to the absence of supplemental heating. The outcome was that the fish did not feed sufficiently and did not grow as quickly as they should and to their maximum weight, thus reducing the pounds of fish produced in a given grow cycle. This adversely affected the productivity and revenue of the operation.

## The Prism Solution

By installing new titanium heat exchangers, Prism was able to recover the waste heat from the space heating boilers and use it to also heat the grow tanks. The outcome was that the tanks could quickly achieve and maintain optimum temperatures simply by utilizing the waste heat from the existing boilers. Within a month of the installation being completed, Ideal Fish reported that the fish were eating better, consuming 40% more feed than prior to the installation attributable to their improved environment. The end result of Prism's installation is that the fish will be growing more quickly and to higher average weights than under the baseline conditions, thus increasing the pounds of fish produced. All of this was accomplished without the additional expense of installing additional new heaters and without an increase in utility consumption or cost.



## The Bottom Line

Ideal Fish represented a unique challenge and an interesting energy savings project. While not saving energy per se, the fish production operation is able to convert waste (heat) to dollars, by utilizing the same amount of energy already consumed and paid for to produce more pounds of fish per month and year. As a production business, doing more with less creates a competitive advantage for Ideal Fish. The ability to use the same amount of energy to produce more product yields additional revenue and profit in a highly competitive market. Prism is proud to bring a simple, yet clever and cost-effective solution to this cash conscious start-up, so they may continue to grow and expand.

## What's Next?

An anticipated subsequent phase of Prism's work at Ideal Fish will include the design and installation of a combined heat and power (CHP) plant. A CHP installation will allow Ideal Fish to simultaneously generate electricity to power the entire facility, while again using the waste heat generated by the unit. Waste heat will be utilized to meet the space heating needs of the plant, as well as to heat additional tanks, supporting an expansion of the grow operation.

