



## Case Study

### Titleist: There's More Than One Green in Golf

Back in 1999, Titleist was thinking green.  
Not golf green; environmental green.

At the Acushnet Company, maker of Titleist brand golf balls, protecting the environment is a longstanding commitment. So is delivering top quality golf balls.

And deliver they do; 1,000,000 golf balls per day, to be exact.



In 1999 as part of a corporate green initiative, Acushnet decided to implement air correction systems for their golf ball paint and finish production lines in Massachusetts. The search for a supplier began.

Acushnet manufacturing plants place a great deal of emphasis on meeting production goals without compromising quality or its strict environmental stewardship policy. And, according to their Supplier Citizenship Policy, they apply the same rigorous environmental standards to their suppliers.

The right air correction solution for Titleist had to be:

- Proven and reliable (even in New England winters)
- Backed by superior support
- Environmentally friendly (low operating cost)

After evaluating several air correction technologies, a 16,000 SCFM Regenerative Thermal Oxidizer (RTO) was selected as the air correction system best in alignment with Titleist's priorities.

After evaluating several suppliers, CycleTherm was chosen as the supplier who could deliver:

- Proven technology (holder of 8 patents for RTO technology)
- Superior support (backed by more than 30 years' experience)
- Environmentally friendly RTO technology

Each 2-chamber RTO system is equipped with Cycle Therm's patented 'quick-switching' 4-way chamber transfer valve, which driven by a rotating cam system, switches the 2 recovery chambers from reheat to preheat in ½ second. The electronics are designed to accelerate the valve movement for 0.2 seconds and then decelerate it for 0.3 seconds, bringing it to a non-slam stop at their respective opposite seats.

The drive system is reliable, and rugged. Whether in operation at the Equator or in Antarctica, the valve speed is not negatively impacted by outside ambient temperatures like pneumatic and hydraulic systems.

### **Environmentally Friendly**

Regenerative Thermal Oxidizers have the benefit of reusing 95% of the heat used to destroy a contaminant, therefore using less fossil fuel than any thermal technology. RTOs also have the benefit of consistent destruction performance without having to worry about catalysts or adsorption media, which are common problems with catalytic oxidizers and concentrator systems.

Much of the CycleTherm RTO's low operating cost can be attributed to the device's simplicity and innovated patented features such as its "ULTRA" low pressure drop patented heat recovery media, which features superior heat transfer capability and due to the low pressure drop allows lower fan horsepower saving precious electricity.

### **Superior Support**

The 30 year genesis of the Cycle Therm RTO allows our clients a field proven engineered solution right from the start. We encourage our clients to look at the total life cycle cost of air pollution equipment before buying. When the evaluation is complete the Cycle Therm choice is clear.

### **Conclusion**

In conclusion, the selection of CycleTherm to provide the RTO for Titleist was a win-win situation for all involved. The equipment performed flawlessly. After 3 years in operation, Titleist relocated the RTO to their new manufacturing facility and purchased 3 additional systems to handle the emissions from their new PRO-V1® and PRO V1-x™ ball lines.

### **About Cycle Therm**

Cycle Therm is an international leader in the design, fabrication, and installation of Regenerative Thermal Oxidizers (RTO). The RTO we bring to market today is the genesis of over 30 years of design experience focused on a single product.

In addition, Cycle Therm provides turnkey installation services, repair and refurbishment and is a distributor of Cell Stone® heat recovery media and tower packing.

### **For More Information**

For more information on Cycle Therm's RTO or other Cycle Therm products, please call 570-839-8836 or visit us on the web at [www.cycletherm.com](http://www.cycletherm.com).

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