TACO AIR SEPARATOR SOLVES HIGH SCHOOL'S SYSTEM AIR PROBLEMS

Air elimination in hydronic systems is an important requirement in terms of system efficiency and comfort. The presence of tiny air bubbles in system water causes noise and also contributes to equipment degradation over time due to corrosion caused by bacteria growth. Purging the system repeatedly of unwanted air requires annoying contractor call backs.

This is was exactly what happened within a hydronic heating system installed in Montwood High School in El Paso, Texas. The school's heating system was installed almost fifteen years ago and almost immediately began to cause problems. According to school maintenance engineer Tony Regalado the system never flushed properly and regularly "burped' as air built up in the system's 218 heat pumps. Algae also began to grow whenever system water temperatures dipped below 70° F.

El Paso's Montwood HS suffered from air in its heating system for over a decade

As a result, the system required constant servicing to drain water from the loop and treat system water for unwanted algae growth. Air separators were placed along the loop to eliminate the air but proved ineffective. The water treatment contractor advised the school district that they could not treat the water because they couldn't first get the air out of it.

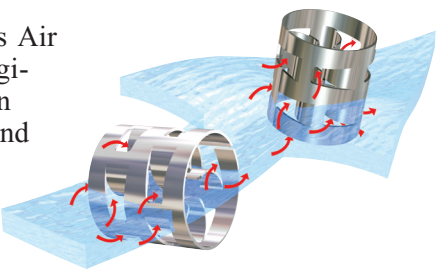
"Basically," says Tony Regalado, "we were left with a system that constantly developed unwanted air and bacteria growth that we couldn't get rid of because there was nothing on the market to fix the problem."


Tony Regalado taps water from the 4900 Series Air Separator

That was until last year when Regalado was introduced to the Taco 4900 Series Air Separator. Taco's 4900 Series was specifically designed for hydronic systems like the one at Montwood High School, because it provides complete air elimination. Within the first thirty days after its installation, the 4900 Series Air Separator successfully flushed out both air and the algae buildup.

The key behind the 4900 Series' claim to complete air elimination is its patented PALL ring process. Inside the 4900 unit is a PALL ring chamber containing a dense pack of stainless steel PALL Rings. The PALL Ring chamber optimizes a collision of flowing system water with the PALL Rings. As a result of this collision, all of the gas containing water particles are brought into contact with the entire PALL Ring surface area. Even the smallest micro-bubble present in the water adheres to the surface of a PALL Ring, allowing coalescence to occur and air to be removed.

The tiniest air bubbles that adhere to the surfaces of the PALL Ring join together to form larger air bubbles. These combined bubbles then traverse up through the water and into the air chamber to be released from the unit's conical venting chamber.


Patented PALL Rings capture even the tiniest air bubbles

Taco's 4900 Series Air Separator was originally developed in the Netherlands, and Taco purchased exclusive licensing rights to manfacture and sell the unit within the U.S. Tests carried out at Delft Technical University have unequivocally proved that 4900 Series Air Separators remove all micro-bubbles from 15-20 microns and up – three times more effective than comparable air separators currently available.

With the installation of the Taco 4900 Series the school's system has operated perfectly without any air bound problems and water treatment has been successful as well. "The 4900 Series Air Separator was the answer to our longstanding problem," says Tony Regalado.

For more information on the 4900 Series Air Separator from Taco, visit the company's new website at www.taco-hvac.com.