Case Study

Fletcher Jones Mercedes

Site Information

User: Fletcher Jones Mercedes
Owner Rep: Dan Reed, Facility Supervisor

Location: Las Vegas, NV

Contractor: Lawyer Mechanical Services, Inc. Equipment: Spirovent® Air and Dirt Separator



Situation

Fletcher Jones Mercedes has a sophisticated heating and cooling system using ice storage and hot water at their Variable Air volume boxes with re-heat. Continuous cold calls revealed plugged "Y" strainers at the VAV box preventing hot water from being circulated through the re-heat coil. A water sample was taken and found to be very dirty and dark. The circulating pumps were also noisy during operation.

Solution

A "cyclone" type air separator was removed and Lawyer Mechanical Services, Inc, a division of Lawyer Trane, delivered and installed a Spirovent® air and dirt separator by Spirotherm, Inc., designed to remove the air and dirt down to the smallest of particles. The Spirovent® separator is built with no internal moving parts but has surfaces for coalescing the air and dirt to separate them from the circulating water. The dirt falls to the bottom of the vessel and is blown down the waste drain. The free, entrained and dissolved air rises to the top and is vented automatically to the atmosphere. The maintenance of this unit is minimal and very effective in cleaning the system.



Above photo shows the results before and after the installation of a Spirovent® Air/Dirt Separator by Spirotherm, Inc.

Results

Air elimination from the system has resulted in much smoother pump operation, dirt free water has eliminated cold calls and much more comfortable spaces within the entire facility. Water waste and chemical usage has been drastically reduced. System water samples were taken throughout the process from the same spot and are noted as

follows:

- A. Spirovent® combination air and dirt separa tor, installed 4/15/09, sample taken 4/18/09 (system shut down for the summer)
- B. System started up 10/01/09 for winter opera tion. Sample taken 10/13/09 (with daily blow downs)
- C. Sample taken 1/11/2010

Lawyer Trane

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Dan Reed Fletcher Jones Mercedes 7300 West Sahara Avenue Las Vegas, NV 89117-2756 March 16,2010

Fletcher Jones Imports Steve Kaplan General Manager

Jerry Jackson Existing Building Consultant Lawyer Mechanical 3036 S. Valley View Blvd. Las Vegas, NV 89102

Dear Mr. Jackson:

We recently purchased a Spirotherm from you to install in our hot water heating circuit. I just wanted to take the time to let you know how delighted I am to have this product in our building. The miniature see through unit showed us how the Spirotherm worked.

Before having Spirotherm installed, I had multiple cold calls every week. We would have to backwash our strainers every time because of the debris which got caught up in the strainers. The water in our system was black. We tried recommendations from our chemical treatment people to drain the system, flush with clean water and re-fill with water and chemicals. This would help for a little while, but soon after the water was black again because of the water that did not get cleaned out of the system during the flush. It was also very expensive because of the chemical re-charge and water waste.

It was only after we installed a Spirotherm were we able to completely clean up the system. Our cold calls have completely diminished, and filters and strainers are always clean. This is such an amazing product that we have purchased another unit for the chilled water system because while it was not as bad as the heating water, it was so dirty that the chemical company could not test the water correctly because the reagents color changes would not register. The chilled water system has cleaned up just like the hot water system. Both systems are crystal clear now and looks like water right out of the tap with a slight color depicting the chemicals in both loops.

This product requires very little maintenance with a short blow down daily at first, then as the system becomes cleaner, a weekly flush is all it needs. When the system is clean, a quarterly short flush is all that is needed.

If I am ever in charge of another building, and it does not have a Spirotherm installed, you better believe it will, soon after I arrive.

Thank you for providing this product.

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