



15+% More Chilled Water Plant Capacity with 12+% Lower Energy Costs

AIR AND DIRT PROBLEMS

Air bubbles and the system-wide corrosion caused by air waste significant utility dollars. The fluids that travel through a hot and chilled water system to maintain building comfort contain air which reduces thermal efficiency and causes corrosion. Micro air bubbles can cover heat exchangers and heat transfer surfaces acting as an insulator which reduces thermal heat transfer performance and efficiency. Water in combination with air that is in contact with steel surfaces of system components and piping also causes corrosion which leads to pitting and leaks.

Debris produced by this corrosion may clog the small passages of boilers, chillers, heat exchangers and coils, cause unscheduled maintenance and costly repairs.

BEST PRACTICES

Traditional methods of air removal are often ineffective and obsolete. Filters removing particles (or “dirt”) treat the corrosion symptoms rather than the root cause (air) and are maintenance-intensive. Properly handled, upgrading to the current “best practice” in air and dirt removal is an exceptionally attractive financial investment Simple Payback Periods less than one year in most scenarios evaluated.

PERFORMANCE

The Spirotherm Spirovent® Air & Dirt Separator removes all visible air bubbles, up to 99.6% of dissolved air, and particulates down to the size of dust particles (~ 5 µm) in closed hydronic cooling and heating systems. The effective removal of these substances allows systems to operate air and dirt-free as designed and to be unhampered by the efficiency and performance-robbing air and dirt that plague most systems.

ENERGY SAVINGS

Spirotherm customers have documented significant system-wide improvements following Spirovent installations. Some of the highlighted results include increased chiller plant output (tonnage) by 15.9%; decreased heating hot water (HW) plant natural gas usage by 8%; and increased CHW system ΔT 's by 1.5°F. Other notable observations include an 85+% reduction in corrosion prevention chemicals.

**For additional information, contact your local Spirotherm Representative.
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