



FMC Technologies ensures efficient building energy solutions through advanced commissioning

STONEHILL COLLEGE WELCOME CENTER

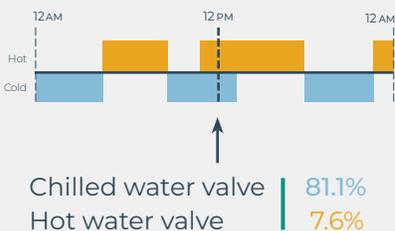


PROJECT OVERVIEW

Stonehill College designed their 35,000 square foot Welcome Center to house offices, classrooms, a cafe, a 360-seat auditorium, the school store, and multiple study spaces.

ADVANCED ANALYTICS

24 hour analysis of the AHU showed simultaneous heating and cooling.



As Stonehill College designed and constructed a new central hub for their students, they partnered with FMC Technologies (FMC) to create an end-to-end HVAC solution. Through their Energy Management System (EMS) design, implementation, and commissioning, FMC brought precise environmental control and occupant comfort to the Welcome Center at Stonehill College.

A SOLUTION BUILT FROM THE GROUND UP

From the start of the Welcome Center project, FMC worked with Stonehill College to build an HVAC solution from the ground up. FMC offers full implementation services, managing system installation, configuration, and commissioning. For the Welcome Center, FMC configured a custom EMS to network three air handling units (AHUs), VAV terminal boxes with hot water reheat, and other HVAC equipment for direct digital control. By the summer of 2018, the HVAC solution was nearly ready and entered the final stage of implementation - commissioning.

A CRITICAL STEP IN SOLUTION IMPLEMENTATION

FMC commissions building systems with both point-to-point commissioning and real-time system performance commissioning to ensure that each device and the system as a whole operate as designed. As FMC performed advanced commissioning at the Welcome Center, the results proved the necessity of this critical implementation step. Using advanced analytics to capture system performance over 24 hours, FMC identified a prominent energy-efficiency issue in the AHUs. The chilled and hot water valves in the AHUs operated normally for most of the day, but in one unit the valves were briefly open simultaneously. During that period, the analytics showed the chilled water valve was set to 81.1% open while the hot water valve was set to 7.6% open. In this installation, they should never have been open at the same time. With this detailed information, FMC recalibrated the AHU's internal control system to restore optimal operation.

THE ADVANTAGE OF ADVANCED COMMISSIONING

This issue and its source would be more difficult to identify without the depth of analytics in FMC's advanced commissioning. This would result in an HVAC system that performed less efficiently and cost Stonehill College unnecessary energy expenses. By detecting and resolving system issues as part of their implementation process, FMC ensured the controls solution operated as designed and the Welcome Center provided superior occupant comfort when it opened its doors.

About FMC

FMC Technologies provides advanced building systems that reduce building operating expenses, increase productivity, and provide a safe, comfortable working environment.

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