

Equipment Upgrades, Modernization and Retrofits

Key Strategies Designed to Enhance Efficiency, Optimize Operation and Improve Your Bottom Line



Extend Your Building's Equipment Life While Enhancing Its Performance

Implementing the latest upgrade and modernization technologies during the lifecycle of your heating, ventilation and air conditioning (HVAC) system components will help ensure operating efficiencies and may extend their useful life.

Forward-thinking facility managers and owners realize that these extremely viable and practical modification options may also result in an immediate and positive impact on a building's fiscal bottom line until the appropriate time for equipment replacement budgeting.

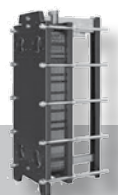
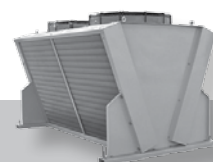
Each of Carrier's recommended upgrade solutions are designed to help deliver lower energy costs, increase existing operating efficiencies, improve tenant comfort, seamlessly integrate and manage disparate components through precision controls and extend equipment life. As an example, variable speed drives (VSDs) and digital controls will immediately upgrade the capabilities of older equipment for better performance.

Proactively Identifying Potential Upgrades

Any maintenance program cannot completely eliminate the impact that time will have on HVAC system equipment components. However, Carrier experts will fully assess your system's current equipment condition and operating performance, then recommend the best course of action for a successful upgrade to extend its life. Our industry-recognized maintenance programs can track performance, conduct regular inspections, and perform all scheduled maintenance activities... each designed to achieve and support your upgrade goals.

Potential Benefits

- Increase value of building assets
- Extend equipment life
- Drive down operating costs and maintenance expenses
- Maximize system efficiency and occupant comfort
- Integrate your building's HVAC components to create a network that's easy to understand, monitor, regulate and change from any location



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Building conditions such as physical modifications, occupancy levels, heating and cooling load requirements often change over time, which can impact the performance of both your HVAC system's equipment components and entire facility. To accurately identify your building's specific equipment upgrade opportunities, Carrier works closely with your personnel to create a detailed HVAC system analysis which may help extend its useful life while maintaining the best operating efficiencies possible. Furthermore, we can supply a detailed cash flow analysis of each retrofit upgrade option, giving you accurate financial data for more informed fiscal decisions regarding the components of your entire system.

Identifying Upgrades in Your HVAC System

When you partner with Carrier, we will mutually develop and select the best solutions to enhance your HVAC system's overall performance, efficiency, cost effectiveness and useful life. The charts below illustrate many of our specific upgrade and modernization capabilities for all your building's HVAC system components.

Chiller Upgrades and Modernization

Following a thorough examination of your chiller's current status with your building's personnel, we collectively select and itemize the optimum upgrade solutions designed to deliver enhanced performance and efficiency.

- Variable Speed Drives
- Control Panel Retrofits
- Chiller Tube Replacement
- Chilled Water Plant Controls
- Control Optimization
- Driveline Retrofits
- Compressor Optimization
- Sandblast and Epoxy Coat Heat Exchanger Tube Sheets
- CFC/HCFC Refrigerant Conversion
- CFC Destruction
- Sound Attenuation Blanket Systems
- Carrier® SMART Service*

**Carrier chillers with PIC controls*

Controls Upgrades

A Carrier controls upgrade will seamlessly integrate all your building's HVAC components to create a network that's easy to understand, monitor, regulate and change... from any location.

- Building Automation System Expansion
- Third Party Integration
- Software Upgrades
- Controls Optimization
- Complete Controls Calibrating and Servicing
- Controls System Monitoring, Alert and Reporting Capabilities
- Water Flow Control and Optimization
- Equipment and System Trending

System Upgrades

Regardless of your equipment's original manufacturer, Carrier will implement a comprehensive upgrade and modernization program designed to bring your entire HVAC system to an optimal level of efficiency and performance.

Cooling Towers:

- Variable Speed Drives
- High Efficiency Motor Replacements
- Controls Retrofits
- Fill Replacement

Pumps and Motors:

- Variable Speed Drives
- Rebuilds

Other:

- Heat Exchanger Cleaning, Re-gasketing and Reconditioning
- Boiler Controls and Burner Upgrades
- Air Distribution System Diagnostics and Balancing
- Thermal Energy Storage