*The Philharmonic Center for the Arts showcases both the performing and visual arts in a single complex.*

## CASE STUDY

### Arts Center

**Facility at a glance**

**Name**
Philharmonic Center for the Arts

**Location**
Naples, FL USA

**Facility size**
1,425 seat main hall, 282-seat black box theater plus a 30,000 ft² art gallery

**Issue**
Turnkey chiller plant replacement along with system upgrades

**Solution**
2 Daikin Magnitude®
magnetic bearing chillers

# Philharmonic Center for the Arts sees the beauty of savings and sustainability after chiller plant replacement

## Issues

Replacing aging, inefficient chillers dating from the 1989 construction of the Philharmonic Center for the Arts allowed the non-profit facility to reduce energy costs and improve the sustainability of its chiller plant. With an orchestra hall, a black box theater and four museum quality art galleries, the new system had to be quiet and reliable, as well as efficient.

## Solution

After visiting other sites with the latest chiller technology, the Center chose to replace their old chillers with Daikin Magnitude magnetic bearing chillers. Working with Carroll Air Systems and Florida Power and Light the service department of Daikin Applied was selected to provide a turnkey solution to coordinate the new chiller plant project based on their long relationship with the center. Their efforts included working with the Center on a variety of private and government grant funding requirements.

## Outcome

A tight replacement schedule started in July with a completion date of October 1, 2011, in time for the peak winter season. Daikin temporary chillers were used to maintain critical cooling and humidity levels in the art museum during replacement work.

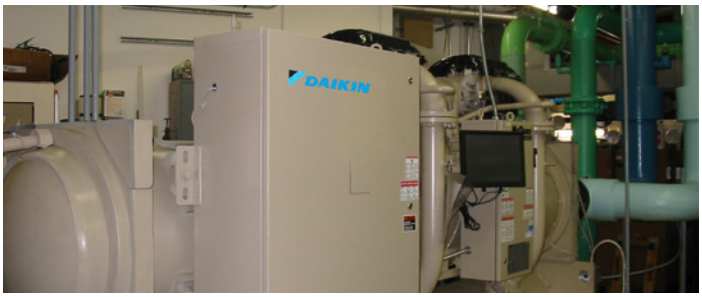
The completed replacement project included a variety of high efficiency system upgrades resulting in a 14% year over year savings.

- Two Magnitude WMC 290D chillers
- Chilled water and condenser water pumps with variable flow drives
- New BAC cooling towers with variable speed fans
- Updated buildings controls interface to existing BAS system using BACnet® network communications

### Savings Summary


Year-over-year energy savings
**January through April, 2011 vs. 2012, saved approximately $17,000 or 14%**

Utility rebate received
**from Florida Power and Light**




*Two Daikin Magnitude magnetic bearing chillers were a part of the solution provided by Carroll Air Systems and the service department of Daikin Applied for the Philharmonic Center for the Arts.*