Daikin Applied Development Center

Putting synergy to work for the environment and the best customer comfort

Opened in May 2009, the Daikin Applied Development Center is the world’s most advanced facility for heating, ventilation and air conditioning (HVAC) research and development. The purpose of the new center is to develop and test advanced chiller, compressor and other HVAC technologies to reduce energy consumption and ultimately the carbon footprint of the buildings where they will be used.

The Daikin Group – Global Leader in HVAC Solutions

In 2013, McQuay International became Daikin Applied, creating a tremendous synergy to serve residential, commercial, institutional and industrial HVAC markets as the industry leading solutions provider globally. This synergy represents the combined strengths of the two companies. Daikin is a leader in using technologies that help preserve the environment, such as those that conserve energy, and deliver high reliability to its customers. Daikin Applied flexible applied systems deliver high efficiency for commercial, institutional and industrial buildings. The Applied Development Center allows the Daikin Group to fully leverage these strengths and accelerate the development of applied products that support the environment, energy savings, innovation, leadership and the best customer comfort. The Daikin Group is already a leading supplier for building projects pursuing LEED® certification.

The Applied Development Center

The 49,000-square-foot (4,600-square-meter) research center, located at our world headquarters in Minneapolis, Minnesota, includes six test cells, with space for two additional cells in the future. Included are a worldwide range of electrical voltages, frequencies and a range of procedures for testing ambient conditions (temperature and humidity).

The Applied Development Center can simulate building, electrical and climate conditions of any location throughout the world, allowing the basic design development of new products to be centrally located in the facility. These ‘global models’ are then arranged into a suitable design to match requirements at existing regional development centers throughout the world.

LEED® Gold Certification

Daikin officials have received Leadership in Energy and Environmental Design (LEED) Gold certification from the U.S. Green Building Council for the Applied Development Center. With more than 90 percent of the building’s energy generated by process loads (e.g., hot and cold water for chiller and compressor tests), energy savings are realized primarily by recovering 75 percent of that energy and diverting it back into the system. Other environmental features include water-efficient landscaping, recycled construction waste, use of recycled content for interior surfaces, low-emitting sealants and locally purchased materials.

For More Information

For more information, or to arrange a tour of the Applied Development Center, contact your local Daikin Applied representative. To locate your local representative, visit www.DaikinApplied.com
# Daikin Applied Development Center

<table>
<thead>
<tr>
<th>Location</th>
<th>Minneapolis, MN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (ft²/m²)</td>
<td>49,000 / 4,600</td>
</tr>
<tr>
<td>Date Opened</td>
<td>May 20, 2009</td>
</tr>
<tr>
<td>Purpose</td>
<td>Most advanced R&amp;D center in the world that will be used to leverage our technology expertise and accelerate development of new, innovative, highly reliable and energy saving heating, ventilation and air conditioning (HVAC) systems for global markets.</td>
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</tbody>
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## Development Programs
- Water-cooled Chillers
- Air-cooled Chillers
- Water Source Heat Pumps
- Centrifugal Compressors
- Screw Compressors
- VFDs
- Heat Exchangers
- New Air-conditioning Systems

## Testing Performed
- Capacity
- Efficiency
- Sound
- Reliability

## Number of Test Cells
- 6 (in operation) + 2 (future space)

## Climate Range of Test Cells
- Providing world climate range

## Electric Supply
- Providing world voltage/frequency

## LEED® Certification
- LEED Gold Certification

## Construction Cost
- $50 million U.S. (5 billion JPY)

## Construction Team
- Mortensen Construction, HGA Architects and Engineers, Hunt Electric

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**Daikin McQuay Pathfinder™ Air-cooled Screw Chiller**

**Daikin McQuay Magnitude® Magnetic Bearing Centrifugal Chiller**

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- Pathfinder and Magnitude from Daikin Applied
- LEED from the U.S. Green Building Council

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A/SP 31-273 (02/12)