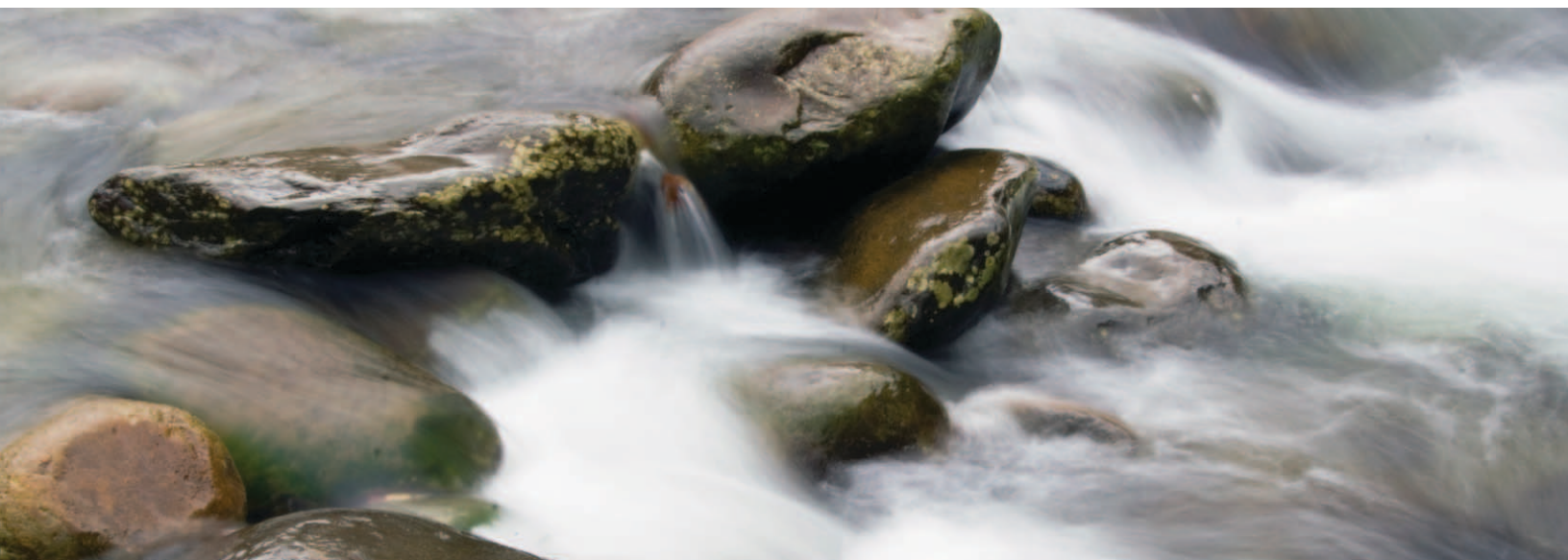
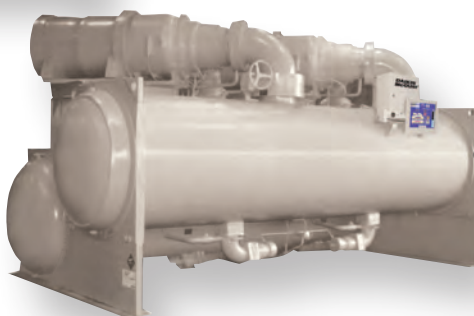




**Centrifugal Chillers**  
**200 to 2700 tons**





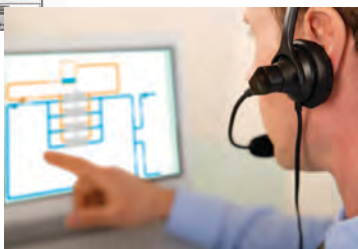
## Daikin Single Compressor Centrifugal Chillers A Life Cycle Return on Your Investment

Centrifugal chillers are a significant investment in your building system. You need a chiller that offers a return on that investment throughout its life cycle. Whether your system is air conditioning or process cooling, new construction or renovation, Daikin centrifugal chillers are the right choice with real benefits for your bottom line.

- **Energy savings** with impressive part load efficiency
- **Lower installation costs** with the smallest footprint in the industry to optimize equipment room space
- **Easy to retrofit** with bolt-together construction for easy disassembly and re-assembly at the job site
- **Lower maintenance costs** result from strategic design choices
  - the positive pressure design does not require a purge system
  - hermetic design eliminates seal maintenance and refrigerant loss due to seal failures
  - no routine maintenance required for hydrodynamic bearings



Regular reports for each chiller allow you to take maintenance action proactively and minimize emergency service situations and expenses.



D-Net services enable Daikin to continuously monitor your equipment's operational performance and to provide remote service support.

**D-Net® Performance Services** enable Daikin to provide enhanced support, faster response, and quicker issue resolution through real-time, web-based communications. D-Net includes regular operational reviews to assist in making informed maintenance and asset management decisions. All Daikin Centrifugal Chillers shipped in the United States and Canada with second generation MicroTech® II controls are D-Net Performance Services capable.



## Efficient, Flexible and Sustainable Centrifugal Chillers

**Quiet compressor design** with movable discharge geometry that reduces sound levels at part load and optional refrigerant injection system absorbs sound energy for even quieter operation.

**Variable frequency drive option** optimizes part load efficiency, a key performance feature since most chillers operate at part load 99% of their life.

**Positive pressure design** does not require a purge system and offers reduced maintenance of seals and hydrodynamic bearings.

**Easy integration** with our Open Choices™ feature using BACnet®, LONWORKS® or Modbus® communications without an expensive gateway panel.

**R-134a refrigerant** offers a significantly smaller footprint than R-123 unit designs and has no ozone depletion potential or phase-out schedule.

**Knockdown option** for total knockdown of the unit allows entry to equipment rooms where access is limited, making it ideal for replacement projects.

**World class unloading capability** without hot gas bypass. The movable discharge diffuser increases stability while reducing sound and vibration.

**Power failure coast-down protection** helps guard against bearing damage after a power failure.

**Touch screen operator panel** is graphically intuitive and easy to use for enhanced operator productivity. Important status and control information is available at a glance or a touch.

**Seismic compliance** option for both IBC seismic certification standards and OSHPD pre-approval.

## Heat Recovery for Operating Cost Savings

Heat recovery provides such effective opportunities for energy savings that ASHRAE Standard 90.1 requires heat recovery be used for service hot water heating and reheat in many buildings. Daikin offers two heat recovery type centrifugal units.

**Heat recovery centrifugal chillers** provide conventional chilled water while recovering heat in a second condenser bundle that would normally be rejected from a building to the cooling tower. The recovered heat can reach 120° F and be used for space heating or domestic hot water.

**Templifier™ water heaters** use a unique technology to recover large amounts of heat that would typically be rejected from the building, raise it up to 140° F (40° C) and then use that heat for processes, building heat or domestic hot water.



## Installed Cost Savings—Two Chillers in One Package

Daikin dual compressor centrifugal chillers take up less floor space than multiple single compressor chillers while delivering the combined capacity.

A dual compressor chiller can also provide installed costs savings of up to 35% compared to installing two separate chillers. Here's why:

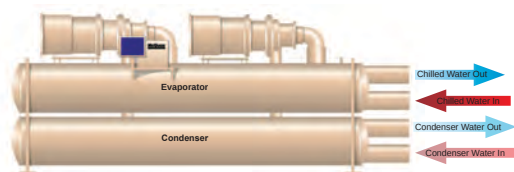
- Eliminates piping to the second chiller and to additional pumps
- Fewer valves and controls
- Less rigging costs
- Reduced control wiring



## Single Circuit vs. Dual Circuit – What's the best dual compressor model for your system?

### Model WDC—Single Circuit

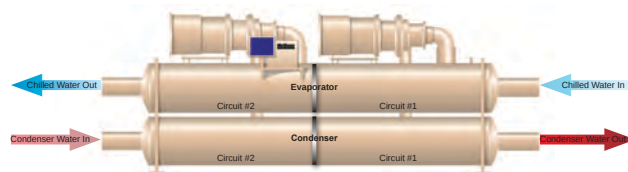
- Overall lowest energy consumption with best part load performance
- Smaller chilled water plant where unit unloading is expected
- Floor space is limited (16-foot vessel length compared to 20-foot for a WCC unit)
- Two or three pass vessels are required, typical of retrofit applications
- Built-in redundancy—a single compressor will provide 60% of full load capacity



**Single Circuit, WDC Chillers** have a single-refrigerant circuit for the evaporator and condenser with two compressors running in parallel and are available in one, two or three-pass configurations. Their salient feature is that at single-compressor, part load operation, the running compressor can utilize the entire chiller's heat transfer surface, providing outstanding part load performance.

### Model WCC—Dual Circuit

- Lowest kW per ton performance at full load
- Large central plant where cycling chillers for system capacity reduction is expected (three or more chillers)
- High chilled water delta-T, and single water pass, low water pressure drops
- Built-in redundancy—a single compressor will provide 50% of full load capacity
- High efficiency and large capacity with series flow



**Dual Circuit, WCC Counterflow Chillers** have a separate refrigerant circuit for each compressor. They are available in single pass only. They provide the high full load efficiency advantage of two separate chillers arranged for counterflow operation in a single, compact unit.



## The Right Chiller for the Right Job

Daikin makes several centrifugal chiller types to meet a wide variety of project size and performance requirements – commercial cooling, district energy plants or manufacturing processes. For more information on a specific chiller type, visit [DaikinApplied.com](http://DaikinApplied.com).

| Application                                                      | Daikin Centrifugal Type                          |
|------------------------------------------------------------------|--------------------------------------------------|
| Cooling, most hours at full load, under 1,250 tons               | Single compressor chiller                        |
| Cooling, most hours at full load, above 1,250 tons               | Dual compressor chiller, dual circuit            |
| Cooling, most hours at part load                                 | Dual compressor chiller, single circuit          |
| Heating, such as space heating or domestic hot water             | Templifier™ water heater                         |
| Simultaneous cooling and heating                                 | Heat recovery chiller                            |
| Optimized part load performance                                  | Variable frequency drive options                 |
| Cooling under 700 tons, optimized full and part load performance | Magnetic bearing compressor centrifugal chiller* |

\*For more information on the Daikin Magnitude® magnetic bearing chiller, visit [www.DaikinApplied.com/magnitude](http://www.DaikinApplied.com/magnitude).

**For commercial cooling, district energy plants, or manufacturing facilities, Daikin has a centrifugal chiller to do the job.**





***Make it a Complete System for Optimum System Performance and Reliability***

**STEP 1**

**Choose a Centrifugal Chiller**



**200 to 1250-ton  
Single Compressor Chiller**



**400 to 2700-ton  
Dual Compressor Chiller**

**STEP 2**

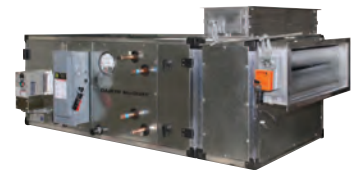
**Choose an Air Handler or Terminal Unit**



**Vision™ Indoor Air Handler**  
900 to 100,000 cfm



**Skyline™ Outdoor Air Handler**  
900 to 65,000 cfm



**Destiny™ Indoor Air Handler**  
600 to 15,000 cfm



**RoofPak™ Outdoor Air Handler**  
4000 to 50,000 cfm



**Unit Ventilators**  
750 to 2,000 cfm



**Fan Coil Units**  
200 to 3,000 cfm

**GSA Contract Holder**  
Contract GS-07F-037TV

**DAIKIN**

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