

Centrifugal Chillers









Single and Dual Compressor 200 to 2700 tons

A life cycle return on your investment





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

Daikin quality at an affordable price

Daikin offers a wide range of centrifugal vessel and component combinations to provide the right solution for your specific application. The single compressor WSC offers excellent full and part load performance while the single compressor WTS gives outstanding full load performance even at demanding high lift conditions. Our dual compressor WDC chillers offer many attractive benefits, including outstanding part-load efficiency, and system redundancy similar to two separate chillers, with a lower total installed cost.



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.

Wide operating range using single or 2 stage compressor to allow operation at varying lift conditions.

Variable frequency drive option optimizes part load efficiency, a key performance feature since most chillers operate at part load 99% of their life. **Knockdown option** for total knockdown of the unit allows entry to equipment rooms where access is limited, making it ideal for replacement projects.

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

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



Model WSC - Single Compressor

- Excellent full and part load performance with optional unit mounted VFD
- Semi hermetic compressor design reduces maintenance by eliminating shaft seals associated with open motor design
- Outstanding unloading capability through the use of moveable discharge diffuser on the compressor



Model WTS - Two Stage Single Compressor

- Advanced two stage compressor design and economizer gives industry leading full load performance
- Industrial design provides reliable performance even at demanding high lift conditions
- Semi hermetic compressor design reduces maintenance by eliminating shaft seals associated with open motor design
- Mulitple impeller configurations to handle normal and high lift applications

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.

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.



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

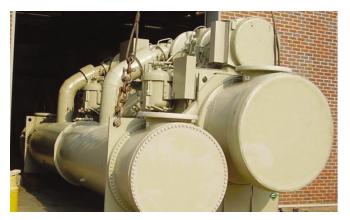


Model WCC—Dual Circuit

- 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



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 by reducing hardware and rigging costs and eliminating second chiller piping and pumps..

The right chiller for the 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**.

Application	Daikin centrifugal type
Cooling, most hours at full load, under 1,250 tons	WSC Single compressor Chiller
Cooling, most hours at full load, above 1,250 tons	Dual compressor chiller, dual circuit
Cooling = 1200-1500 tons, most hours at full load, high lift applications	Daikin Centrifugal Type WTS single compressor 2 stage chiller
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 125 to 1500 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.

Make it a complete system for optimum system performance and reliability

STEP 1

Choose a Centrifugal Chiller



200 - 1250 ton Single Compressor Chiller



1200 - 1500 ton Two Stage Single Compressor



400 - 2700 ton Dual Compressor Chiller



Add a Daikin air handler or terminal unit



Vision[®] semi-custom indoor air handler 900 to 100.000 cfm



RoofPak® applied outdoor air handler 4000 to 50,000 cfm



Skyline[®] semi-custom outdoor air handler 900 to 65,000 cfm



Unit Ventilators 750 to 2,000 cfm



Destiny® commercial air handler 600 to 15,000 cfm



Fan coil units 200 to 3,000 cfm

The industry leader in environmental solutions

Daikin Applied is committed to sustainable practices as part of our corporate culture. We believe it is the right thing to do for our customers, our community, the environment, and ourselves. As the global HVAC leader, Daikin Applied has a unique opportunity to make a difference in sustainable initiatives and continue to lead the industry in environmental solutions.



To learn more about Pathfinder air-cooled chillers, contact your local Daikin Applied sales office or visit www.DaikinApplied.com to find an office near you.





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