

III[®] MULTISTACK[®]

Originators. Innovators. Never the Imitators.SM



Redundancy
Heat Recovery
Comfort Cooling
Modular



Critical Cooling

Efficient

Energy Recovery

Low-Sound

Environmentally Responsible

MagLev[™] Technology

Expandable



Air-Cooled and Water-Cooled Modular Chillers

About Multistack®

Multistack is a 20-year old modular chiller manufacturer based in the heart of the American midwest, Sparta, Wisconsin. A privately held company, the focus of day-to-day business is developing elegant solutions to difficult situations accomplished by applying modular technology. Multistack modular chiller installations range from 20- to 20,000- tons (70 - 70,337 kW).

The concept of modular chillers makes sense in applications where demand is cyclical. Rather than put one big, energy demanding compressor in place, the capacity is divided up among multiple modules that have the same total capacity when they are all running. But, most buildings have demand cycles that reach peak load for only a few hours a day. Early in the morning, late at night and on cooler days that big compressor is placing large energy demands to run, even though only $\frac{1}{3}$ or $\frac{1}{2}$ of its' capacity is required. This is where the modular concept really starts to show value.

Imagine the large compressor unit as an 800-ton (2813 kW) compressor and the equivalent Multistack modular array of ten MS80T modules stacked together. When the equivalent of 800-tons (2813 kW) of cooling is needed, the 800-ton (2813 kW) compressor runs very efficiently. Unfortunately, that condition typically happens about three-days a year. The more common condition is that your 800-ton (2813 kW) system is only required to provide 200-tons (703 kW) of cooling. In this case, the large compressor unit is not the most efficient choice. With an array of modules, a computer control system will turn on compressors as they are needed—and shut them off—to match the building demand, effectively ensuring 24-hour a day efficiency. This presents a much lower energy cost each month because nothing is more efficient than off.

Another essential factor in the modular design is redundancy. When your cooling needs are critical—hospitals, data centers, process manufacturing—if your compressor fails, you are shut down unless you have invested in a complete back-up system. With the array of Multistack modules as your cooling solution you have built-in redundancy by simply adding one extra module in place. Assuming you have 10 modules that will deliver your full demand, by adding just one extra module, if one unit should fail a backup is in place instantly.

Energy use reduction is a major focus at Multistack, which lead to the development of a full line of Dedicated Heat Recovery Chillers. When you are in the process of cooling air, you are simultaneously generating heat to do so. Think of the cold air in your refrigerator and the warm air blowing out below it. Many buildings that have constant cooling needs—data centers, phone rooms, process manufacturing—can supplement or even eliminate the need for a gas boiler by using Dedicated Heat Recovery Chillers. Multistack has devised a way to reclaim the heat generated during the cooling cycle and recycle it to lower energy consumption and reduce utility costs.



Accessibility

Quiet

Carbon Neutral

Redundancy

Water-Cooled Packaged Chillers

Modules available in 20- to 120-ton (70-425KW) sizes

- Redundant design
- Dual Scroll Compressors
- Single Screw Compressor
- Environmentally responsible refrigerant
- Dedicated Heat Recovery Chiller
- Extremely low maintenance
- Minimize carbon footprint

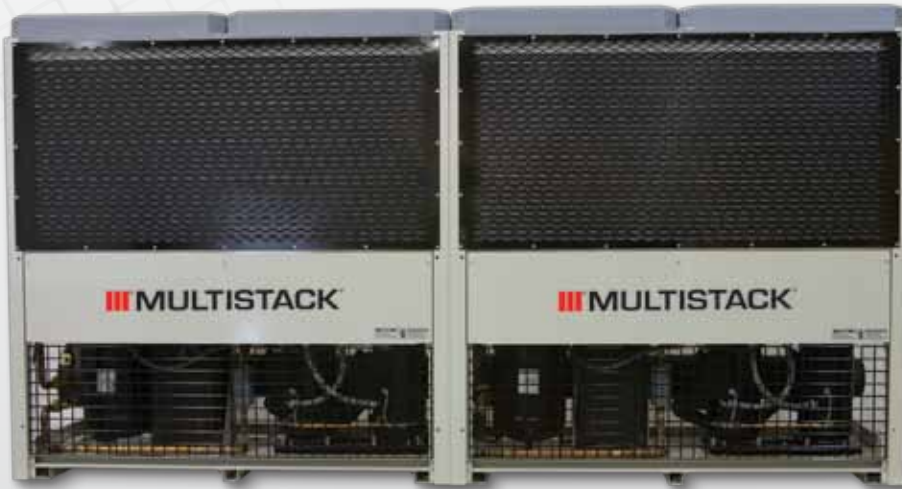


Centrifugal Chiller Modules

Available in water- or air-cooled

- MagLev™ (magnetic levitation) technology
- Redundant design
- Oil-free compressor
- Integral variable frequency drive
- Environmentally friendly refrigerant
- Extremely low maintenance
- Minimize carbon footprint





Air-Cooled Packaged Chillers

Modules available in 10- to 60-ton (35-210 KW) sizes

- Redundant design
- Perfect solution for low water areas
- Dual scroll compressor sets
- Easy future expandability
- Environmentally responsible refrigerant
- Extremely low maintenance
- Minimize carbon footprint

Flooded Chillers

Chillers available 180- to 600-tons (630-2110 KW) sizes

- Multiple MagLev™ centrifugal chillers for redundancy
- MagLev (magnetic levitation) technology
- Oil-free compressor
- Integral variable frequency drive
- Environmentally friendly refrigerant
- Extremely low maintenance
- Minimize carbon footprint



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