



FREE COOLING CHILLER

FISENUSA.COM



FREE COOLING TECHNOLOGY

For data centers and mission critical cooling applications, Fisen Free Cooling System upgrades save money and increase energy efficiency.

The free cooling process utilizes cold, outside air to chill warm return water instead of mechanical cooling. Reduced compressor run time saves energy and extends component lifetimes. The automated system turns on partially or fully whenever ambient temperatures drop at night or in mild to cold weather.

Industries

Data Centers

Flexible design options and modifications available for data centers allow our systems to adapt to changing needs and unpredictable high density loads while operating with low maintenance costs.

Healthcare

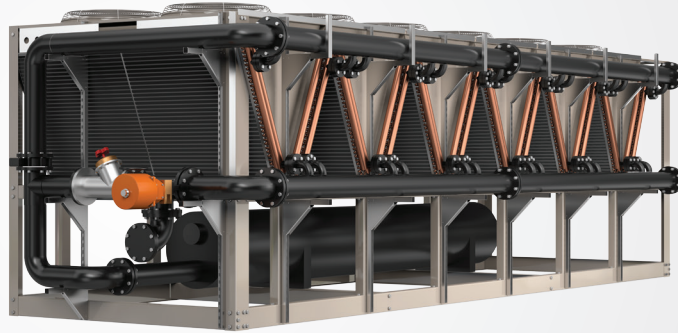
The demand for energy-efficient cooling in medical environments continues to grow due to its ability to improve quality of service, patient outcome and occupant comfort.

We partner with Johnson Controls to engineer and manufacture systems to provide reliable cooling solutions that maintain a sterile hospital environment. Each system is fully tested and guaranteed to meet or exceed ASHRAE standards.

Residence/Hotel

As outdoor temperatures rise, conventional air conditioning systems consume more energy. For hotels and high rises, this can lead to a significant cost increase. Our simple and cost-effective pre-cooling systems offer efficient and reliable performance all season long.

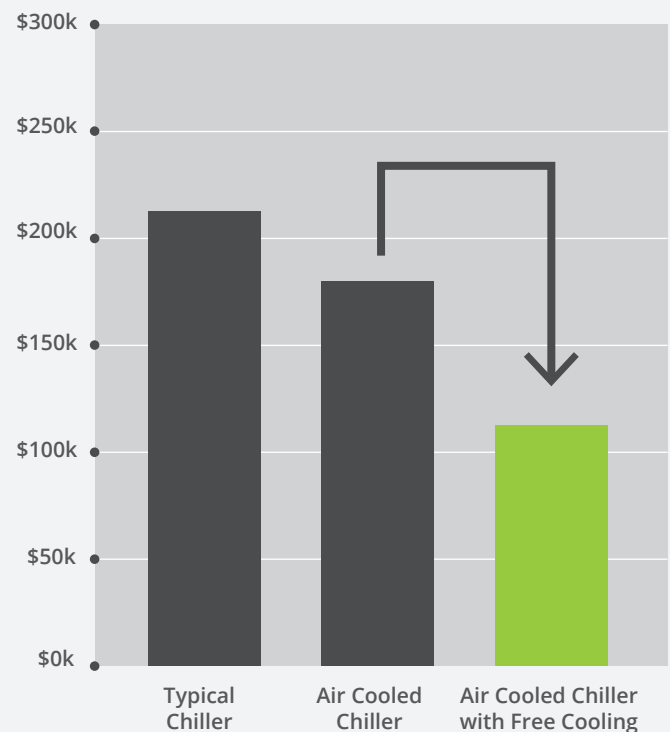
Visit fisenusa.com for more information.



Benefits

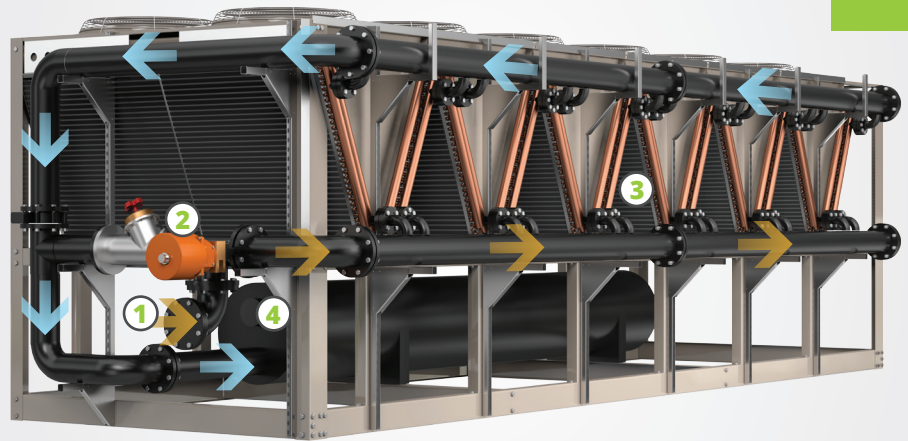
- Operates up to 50% more efficiently than competitors' products
- Industry's lowest kW/ton in design and off-design savings
- Energy efficiencies promise ROI in as little as three years
- Refrigeration and free cooling engineered to operate independently during scheduled maintenance
- Backed by the Johnson Controls warranty and a national network of over 10,000 service providers

Annual Operating Cost (250 TR, 24/7 Operation)

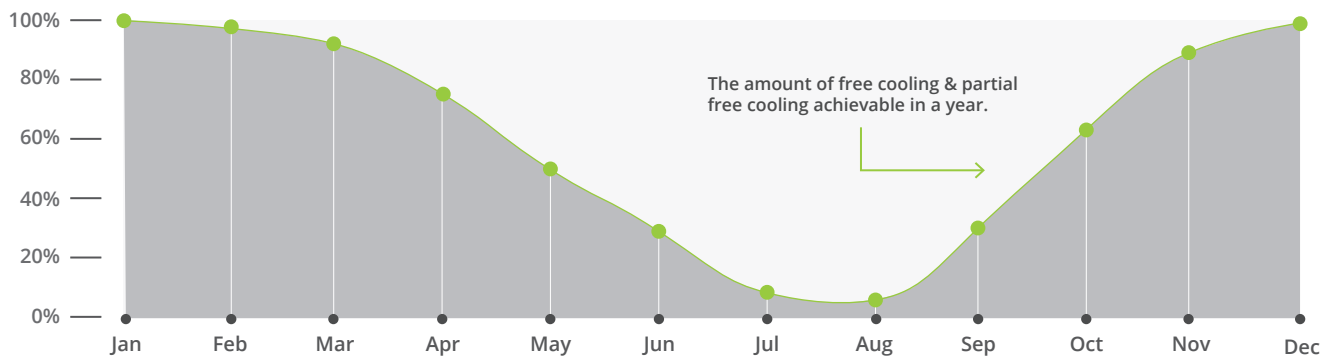


How it works

- 1 Fluid Return**
From building / process
- 2 Control Valve**
Directs fluid for full, partial or no free cooling depending on ambient temperature (diagram shows full free cooling)
- 3 Free Cooling**
Return fluid cools as it passes through coils exposed to flow of outside air
- 4 Supply Fluid**
Automated controls ensure consistent supply temperature regardless of ambient conditions



Example: 10-Year Daily Average of Free Cooling Potential Chicago, IL



Free Cooling

MODEL	0070 SE	0080 SE	0089 SE	00100 SE	00120 SE	00136 SE	00155 SE	00170 SE	0058 HE	0065 HE	0081 HE	0092 HE	00101 HE	00125 HE	00142 HE	00156 HE	00175 HE
#FANS/COILS	4	4	4	5	6	8	8	10	4	4	4	6	6	8	8	10	10
FLUID (%PG)	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
EFT	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
LFT	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
EAT	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F	30F
TONS	55	57	57	70	86	108	110	138	52	54	57	77	82	104	110	129	135
FPD	22.3	25.6	24.6	26.2	29.2	28.6	22.1	26.4	20.8	24	26.5	22.4	27.7	24.8	30.6	21.4	21.5
TOTAL ESTIMATED WEIGHT (lbs)	2943	2943	2943	3512	3869	4938	5438	6429	2943	2943	2943	3869	3869	4938	4938	6429	6429

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