SERVICES
BoostCooler J

Safe Adiabatic Cooling for Dry Coolers & Chillers

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Cooling for life

APPLICATIONS & EQUIPMENT

HVAC and Industry
Data Centres & Servers
Agri food Industry
Cold Storage
Supermarkets

Dry Coolers
Dry Sprayed
High / Low T°C Chillers
Rooftops

ISSUES & REQUIRED OUTCOME

Drop in Performance / COP drift

Direct water spray onto coils has caused scaling and damage: even on part time, scaling is unavoidable

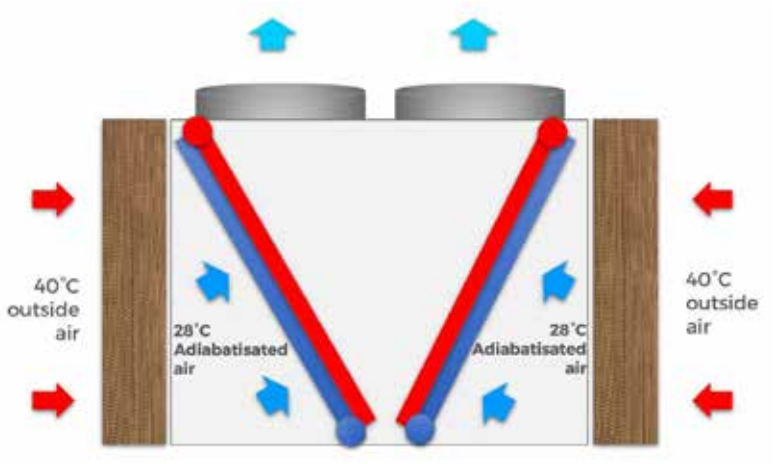
Non compliance with safety requirements (dangerous spraying)

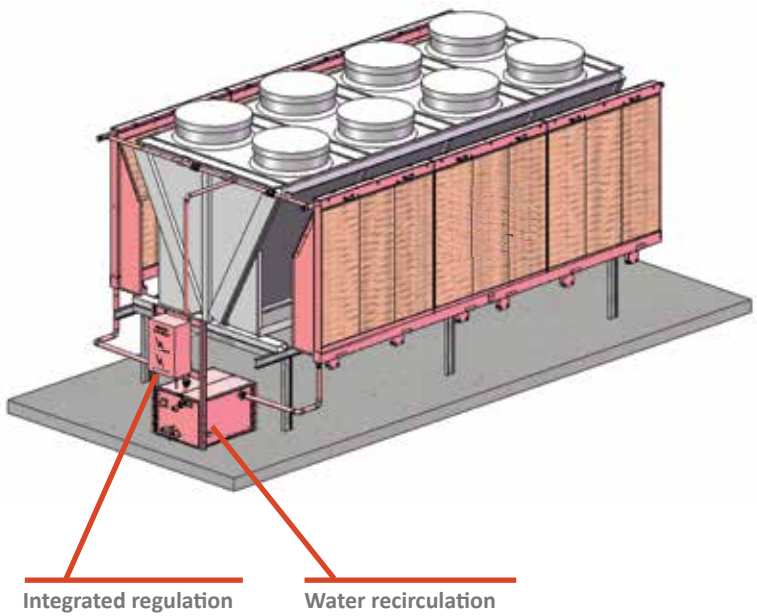
+ improved COP

+ energy and water savings

+ safe operation

OPERATION PRINCIPLE





Safe Adiabatic pre-cooling of the coils

The adiabatic cooling is a combination of a dry cooler and an adiabatic pre-cooling section: this pre-cooling section lowers the ambient air temperature by evaporating water, which is passed over humidifying Media, especially designed for this purpose. During adiabatic operation, the BoostCooler® system uses water evaporation to reduce the cold water temperature to below that of the ambient air.

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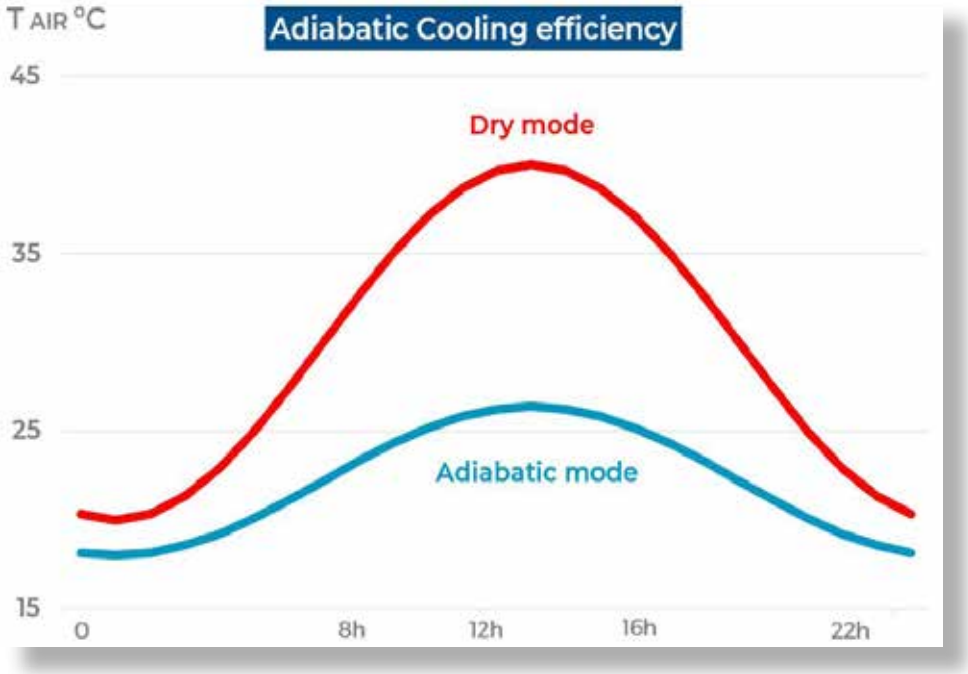
BENEFITS

Maintain cold water temperature during hot conditions

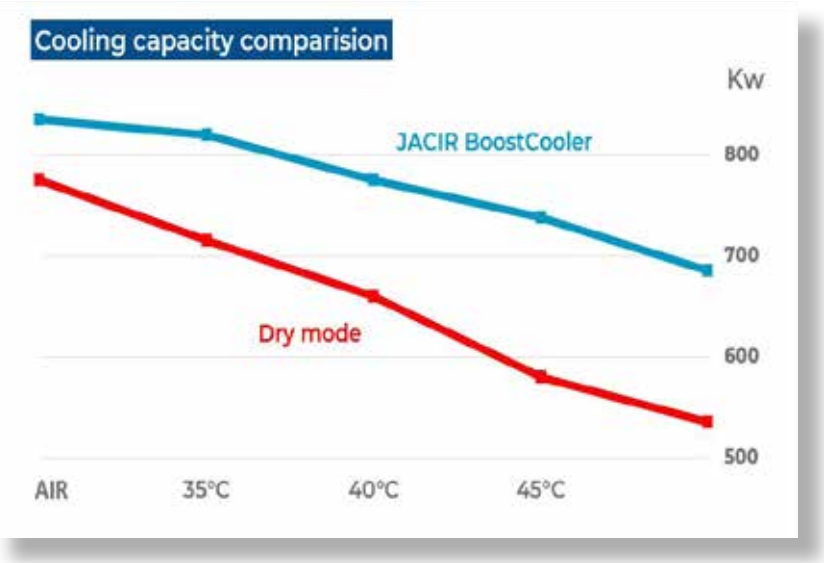
Increase in heat rejection

Zero drift guaranteed

- Performance maintained, even during heatwave
- Thermal performance increased
- Lower cold water temperature
- COP maintained
- Scaling of coils avoided
- No water treatment required
- No drift tested and verified



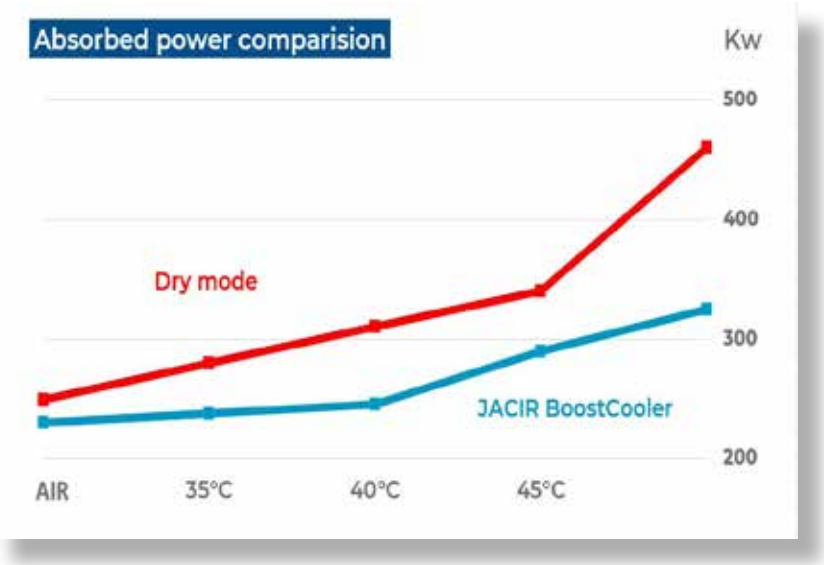
PERFORMANCE



Chiller group characteristics for the example:
Cold power : 700kW - length 7m
Water temperatures 7/12 °C - 35°C Ext.

Comparision of a chiller cooling capacity

Chiller cooling capacity increased.
Duty performance maintained,
even during heatwave.



Comparision of compressors absorbed power

Compressors operation, energy
and maintenance costs reduction.

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Research Institute

2 Dry Coolers (L 9m each)

Initial performance

513 kW - 51/45°C @ 35°C Ext.

IMPROVEMENT

+ 6°C

Optimised performance BoostCooler

513 kW - 51/45°C @ 41°C Ext.

WATER SAVINGS: ALL INSTALLAT

Metal Industry

1 Dry Cooler (L 5m)

REFERENCES

IMPROVEMENT
+ 11°C

Initial performance
725 kW - 45/40°C @ 25°C Ext.

Optimised performance BoostCooler
725kW - 45/40°C @ 36°C Ext.

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IONS INCLUDE WATER RECIRCULATION

Agri Food Production

2 Dry Coolers (L 10m each)

Initial performance

725 kW - 45/40°C @ 35°C Ext.

LOW CONDENSATION TEMP. 10°C

Optimised performance BoostCooler®

725 kW - 35/30°C @ 35°C Ext.

WATER SAVINGS: ALL INSTALLAT

Data Centre

2 Dry Coolers (L 5.5m each)

IMPROVEMENT
+ 7°C

Initial performance
619 kW - 55/50°C @ 35°C Ext

Optimised performance BoostCooler
619 kW - 55/50°C @ 42°C Ext.

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IONS INCLUDE WATER RECIRCULATION

Office Buildings

3 Dry Coolers (L 5m each)

Initial performance

530 kW - 40/35˚C @ 25˚C Ext.

IMPROVEMENT

+ 8°C

Optimised performance BoostCooler

530 kW - 40/35˚C @ 33˚C Ext.

WATER SAVINGS: ALL INSTALLAT

Soft Drinks Production

1 Chiller (L 13m)

Initial performance

1400 kW - 7/12°C @ 35°C Ext.

IMPROVEMENT

+ 7°C

Optimised performance BoostCooler

1400 kW - 7/12°C @ 42°C Ext.

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IONS INCLUDE WATER RECIRCULATION

Jacir designs and manufactures an extensive range of Cooling Towers, Adiabatic Coolers and Condensers in France. We have been delivering value to our clients accross the globe, for over 60 years.

We are committed to offering clients the best solutions to maintain reliability and optimise the performance of their equipment

Renowned for our innovation, our dynamic and proactive R&D department ensures we provide the most current solutions to new and existing installed equipment, combining performance improvement with reduced maintenance costs, water and energy savings, whilst complying with Health & Safety regulations.

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