## Coolerado

### **Case study**

#### **Specifications**

#### Customer

Mcdonald's

#### Location

Bloemfontein, South Africa

Property type

Fast food restaurant

## Square footage

#### **Coolerado solution**

4 M50s

#### Results

- 90% reduction of cooling energy in the kitchen
- 70% reduction of cooling energy in the entire restaurant
- More effective air flow
- Improved air quality
- Fresher, cooler air

# Fast food restaurant saves 90% on kitchen cooling and 70% on cooling the restaurant.

When the compressor on McDonald's 15-ton air conditioner broke down, the owner decided it was time for a greener option—the Coolerado M50. Besides saving the restaurant up to 90% on cooling, the new system solved a menacing air-flow problem and has both employees and customers breathing a lot easier.

The McDonald's fast food restaurant in Bloemfontein, South Africa, was in a tough position. Literally. The building was positioned in a way that the windows in the kitchen and drive-through lane were constantly bombarded with hot westerly winds that blew inside and made the space uncomfortably warm for both employees and customers. With no positive pressure inside the building to counteract the airflow, the restaurant's 15-ton air conditioner struggled to keep up with the heat loads. When the air conditioner's compressor broke, owner Arno Bakkes saw it as an opportunity to make some big changes. And, that's exactly what the restaurant's new Coolerado air conditioning system brought about.

Besides dramatically reducing the amount of energy used to cool the building, the new system pumps five additional tons of cooling. More importantly, the Coolerado system creates more efficient and effective air flow within the building, making the temperatures more comfortable and improving the quality of the air.





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## **M50 Air Conditioner**

Unlike the previous air conditioner that simply recycled the indoor air, the Coolerado M50s bring in 100% fresh, filtered air that's chilled using the company's energy efficient heat and mass exchanger (HMX) technology. The warm air is now exhausted through the open drive through and kitchen windows.

The constant introduction of fresh, cool air helps eliminate grease odors and creates positive pressure that counteracts the airflow coming in via the drive through and kitchen windows. The result is improved air quality within the restaurant and a more consistent, comfortable temperature that's neither too hot or too cold, helping to keep foods their desired temperatures when served.

What's more, because the air is no longer recycled through a traditional unit, the new system eliminates the previous problem of greasy air plugging the filter and condensers, causing additional maintenance.

If the new air conditioners should need maintenance, it can be performed one unit at a time, without bringing the whole system down. "The Coolerado system was one of the best investments I made this year," says Owner Arno Bakkes. "It does all that was promised. I'm extremely satisfied with the air quality and the drop in the electricity bill."

And, that drop is significant—a 90% reduction in cooling energy in the kitchen and a 70% reduction in the entire restaurant. With those kind of savings, he estimates the system will pay for itself in just over two years.

As an added bonus, the waste water produced from the system is being reused for irrigation on outside plants. A reduced carbon footprint and healthier foliage? You can't get much greener than that.

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Arno Bakkes, owner

## About Coolerado

Based in Denver, Colorado, Coolerado has been designing. manufacturing and marketing super-energy-efficient air conditioning systems for light commercial use, based on its proprietary, patented and proven technology since 2004. Customer energy savings of over 80% have been recorded with this cost-effective technology. Coolerado products are highly reliable and virtually maintenance-free and are currently operating in many countries around the world. Coolorado is another quality product by Seeley International.





