

# Aerofoil Energy

Improving energy and temperature performance in  
grocery retail





# About Our Company

Aerofoil-energy is transforming the energy and temperature performance in retail refrigeration for the benefit of supermarket chains, their customers, and the environment.

By helping retailers reduce their electrical energy consumption, their related CO2 emissions are also significantly lower, thereby contributing to corporate and national net zero targets.



# What's the Problem?



Nearly 90% of total refrigeration energy consumption in a typical supermarket is due to the loss of cold air from fridges



Therefore the fridge must work harder to re-cool the circulated air, and maintain target product temperatures



Food waste due to poor temperature maintenance is costly for retailers and has a negative impact on climate-change



# Fridges With Doors?

Some retailers fit doors on fridges to try prevent cold air spill. However, these cabinets are still heavily shopped which means they are frequently left open and are also poorly insulated due to merchandising requirements.

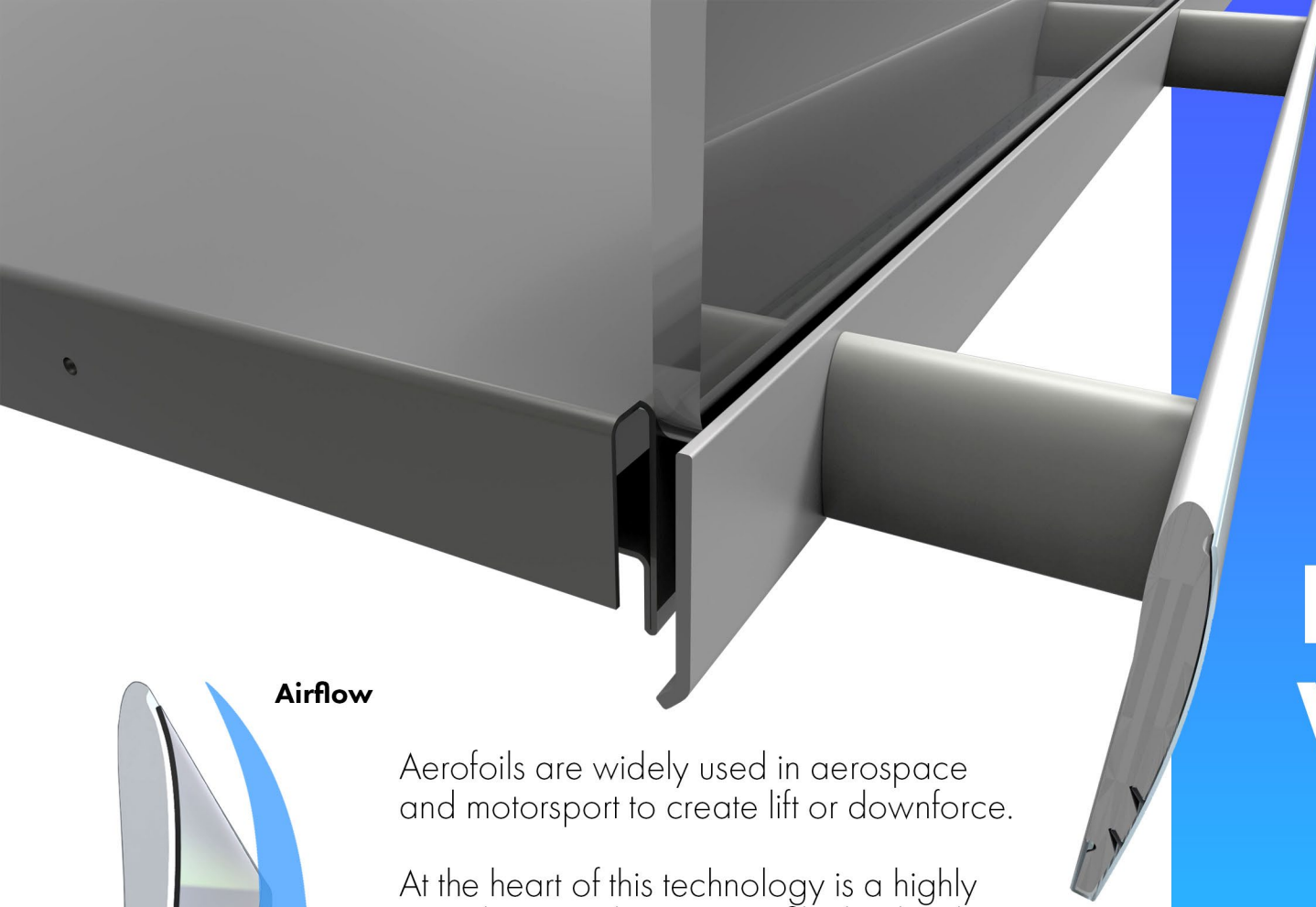




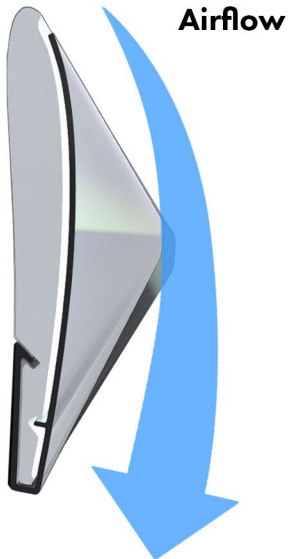
# Our Solution: Aerofoils.

Our patented technology is retrofit to any cabinet, and helps to control the air curtain





# How do Aerofoils Work?



**Airflow**

Aerofoils are widely used in aerospace and motorsport to create lift or downforce.

At the heart of this technology is a highly complex aerodynamic profile that has been designed by nature over millions of years.

We harness this aerodynamic force to **reduce energy consumption of refrigeration cabinets by up to 15 to 25%.**

**Airflow directed back into the display fridge**





Without Aerofoils



With Aerofoils

# How do Aerofoils Work?





# Our Technology

We are proud of our long standing technical partnership with WAE.

Combining their world class aerodynamic expertise with our own industry knowledge, we have been able to deliver multiple technical innovations to enhance the performance of refrigeration cabinets.

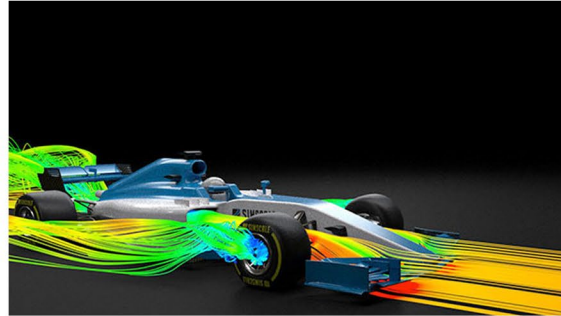


# Computational Fluid Dynamics (CFD)



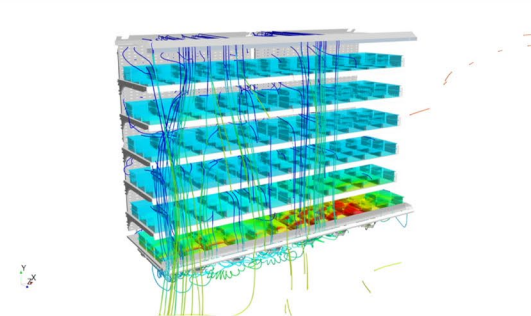
**01**

In motorsport, aerofoils are used to create downforce. In F1, this helps cars going upwards of 200mph stabilize and grip to the track.



**02**

Aerodynamicists at WAE utilize CFD to simulate the airflow around the car to improve its performance.



**03**

Using CFD on supermarket fridges allows us to identify how aerofoils can help control the cold air curtain.



**04**

Our patent protected technology has a huge beneficial impact on energy use, carbon emissions, and product temperatures.



# Aerofoils in numbers

Since 2013, we have..

Installed

**2,000,000+**

Aerofoils in over

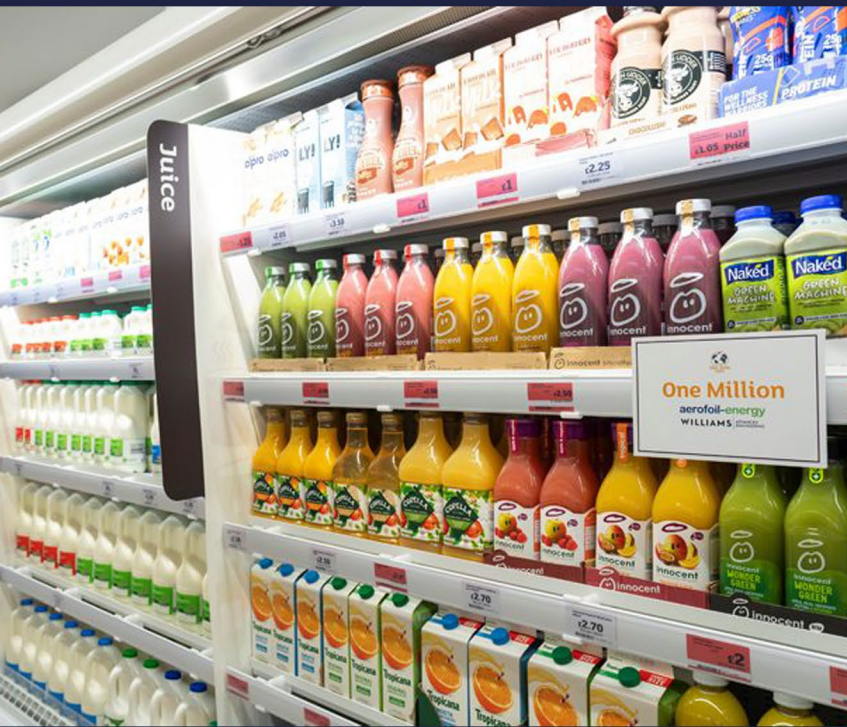
**7,500**

stores.

Saving

**350,000**

tonnes of CO2.



**\$230<sub>m</sub>**

saved by our clients



and saved

**1250**

TWh of energy.

That's..

**1,250,000,000,000,000 Watts**

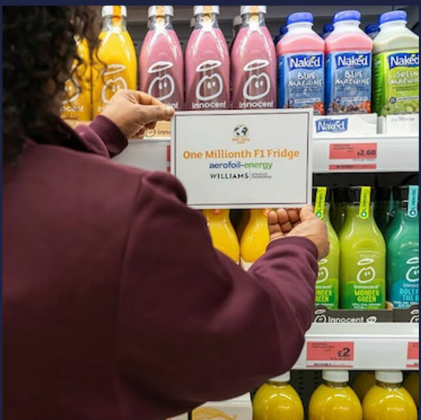
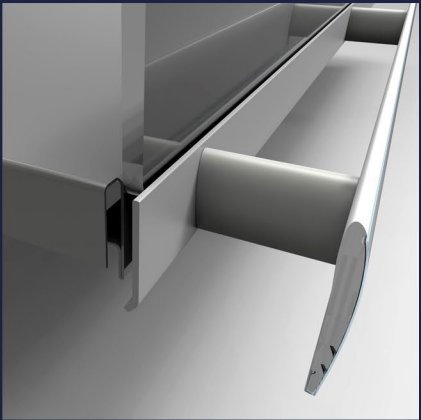
# Our Clients



**Aerofoils have been widely adopted by major retailers, saving 1,300 tera-watt hours of electrical energy globally.**







# Thanks For Listening



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