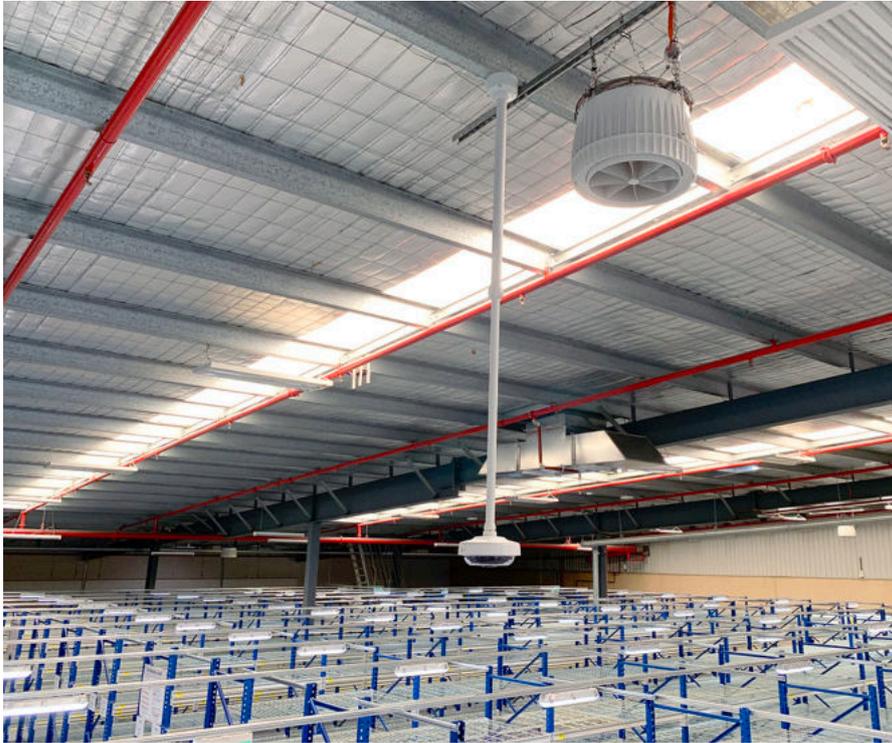




Warehouse Cooling using Airius Fans Yennora, West Sydney, NSW.

Australian leading fashion retailer for online clothing retailers and part of the Global Fashion Group, the world's leader in online fashion. They needed to address air circulation & overheating problems in their 6,500m², three storey warehouse facility in Yennora, Sydney. In partnership with Air-Conditioning Contractor MojoAir, Airius were able to design & supply an effective airflow movement and heat extraction solution, reducing costs & optimising comfort.

CASE STUDY 2020



This large open warehouse is located in Western Sydney and is the distribution headquarters for a world wide fashion clothing conglomerate.

The existing very large warehouse utilises over 15 of the biggest available HVLS fans to provide cooling to the workers.

As there are three floors (utilising grated open floor materials) and lots of aisles, the client was disappointed with the air flow outcomes of the large fans.

When planning their new warehouse extension of approximately 6500 sq. metres, their principal mechanical contractor, Mojo Air, approached Airius to assist in providing a low energy, efficient air movement cooling solution using the Airius fans, to work in conjunction with some other ventilation solutions.

Over \$200,000 worth of Airius fans were incorporated into the design across two summers.

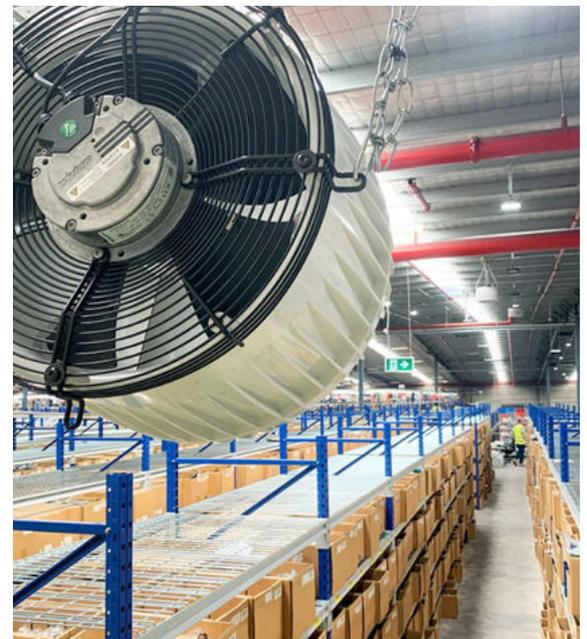
Problem

The design of the building, incorporating mesh flooring on three levels, solid timber ground floor and smoke ventilation, numerous aisles, and high level flooring requiring heat extraction, provided a range of design problems for the Mojo's and Airius' engineers.

Working closely together to ensure sufficient air movement for cooling with minimal impact on other mechanical ventilation requirements, the Mojo Airius team came up with a very successful solution, that has been proven now after being installed across two summer seasons.

CLIENT
Australian Online
Fashion Retailer

PROJECT IN
PARTNERSHIP WITH



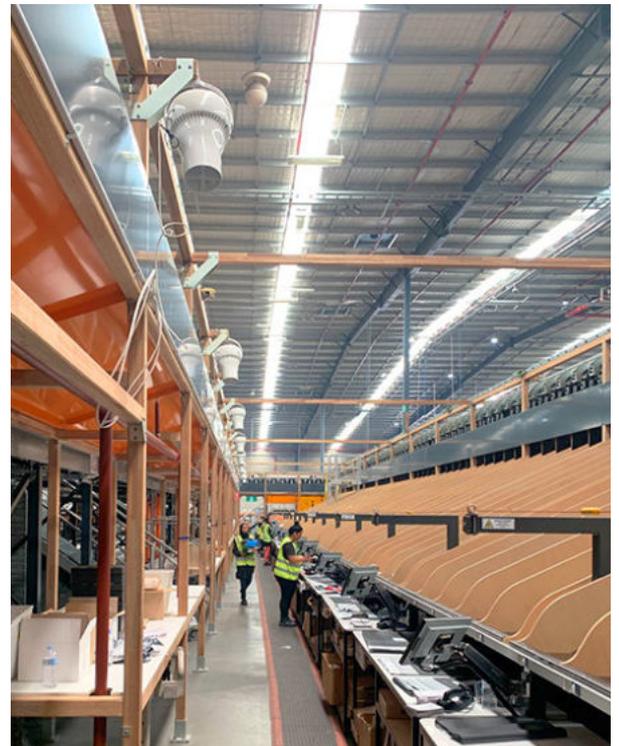
Large Open Warehouse, NSW, the following Airius units were installed: -

- 30 x Model G400 Sapphire Fans
- 56 x Model S1 Pearl Series Fans
- 9 x Model 25 EC Standard Series Fans
- 1 x Model 60 EC Standard Series Fan
- 3 x Airius Potentiometers



Solution

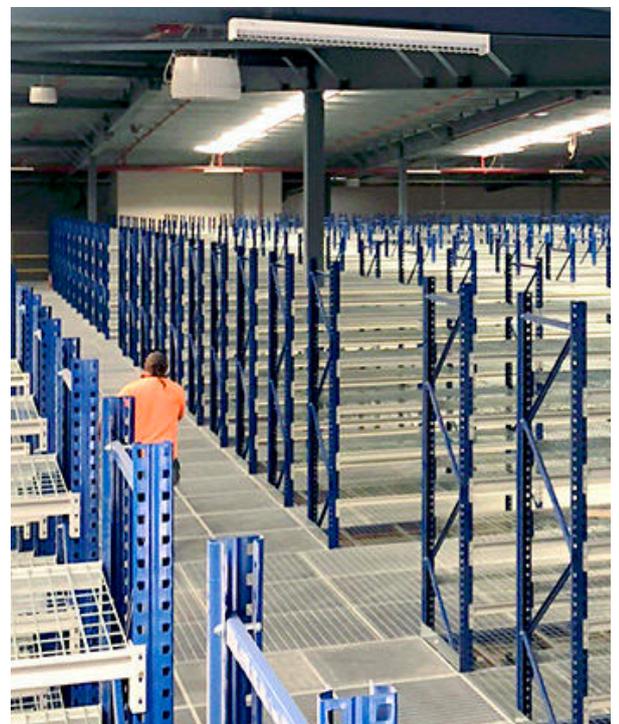
- Due to tight mesh flooring air flow proved difficult to circulate and penetrate flooring with standard fan types, sheetmetal duct distribution or HVLS fans.
- Airius G400 EC Sapphire Plus fans, located at approximately 12 metres above finished floor level, provide high velocity air flow through the three levels of mesh flooring to circulate air and provide cooling across and through all the floors down to the lowest floor level. The fans are controlled via speed controllers on ground level near the stationary management desks.
- Each aisle could not be provided with airflow due to the sheer numbers of aisles, but the main corridors and walkways provided plenty of air circulation opportunities (or cooling stations) for Airius fans.
- Airius Pearl fans, small in size, were installed to service the ground floor at the underside of the floor above, 1 fan between 2 workers, run via speed controller. These fans provide effective individual spot cooling for standing or seated staff members. To ensure this niche set up provided cooling to all workers, Iconic ensured air movement was provided on both sides of the conveyor belt system too (56 off).
- Shelving, open space and pallet storage – the directionality of the Airius G400 fan's air flow, enabled them to be mounted horizontally at low level, to provide thermal comfort (12 off).



Supplementary mechanical items to assist in thermal comfort solution:

- 18 x fan assisted roof ventilators to extract high level heat.
- 12 x 1200x1200 low level makeup air louvres.
- 4 x roof mounted smoke clearance fans as required by fire engineering report.
- 2 x high level supply air makeup fans to meet required air changes.

If you want to find out more about this successful installation please contact **John Brodie** from Airius on **0401 848 888**.



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