

## COOL-FIT 2.0, PVC-U

# Efficient cooling for recycled plastic packaging manufacturer

Synergy Packaging replaces copper to pre-insulated plastic system for both existing and new facilities

Preventing condensation and reducing energy usage by 45%.



# Optimum cooling efficiency in process cooling

Located in Tullamarine, in Victoria, Australia, Synergy Packaging, now under the PACT Group specialises in the manufacture and supply of high quality recyclable plastic packaging options including PET and Recyclable PET bottles, bottle caps and jars, along with various closure options. Catering to a wide range of industries including Personal Care, Food and Beverage and Pharmaceutical, the increasing demand for products in these industries resulted not only to move existing machinery to a new facility and starting production quickly but also to upgrade existing pipe work to gain highest production capacities.

## Project background

The increased demand for Synergy products created the need to achieve higher production capacities. With condensation and energy loss issues in existing copper pipe for process cooling and condenser water cooling, Synergy needed a high quality, reliable and a maintenance free piping systems. Synergy Packaging chose GF Piping Systems' COOL-FIT 2.0 and PVC-U piping systems including piping, fittings and valves to achieve efficiency for process cooling and condenser water applications.

## Selected technical solution

With an existing relationship between Synergy and owner, Mitchell Green of Industrial Cooling Services, replacing existing copper pipe work to COOL-FIT 2.0 was proposed to Synergy. With 30+ years in the industry, Mitchell Green is highly experienced in installation, service and maintenance of refrigeration and air-conditioning systems and is known for being an early adopter who is always looking for new, efficient technology and equipment to push the boundaries and improve cooling systems. This gave Synergy trust.

PVC-U was used instead of copper due to having a system to avoid corrosion, a lighter weight to save further on-site labour costs and the price was more competitive. Furthermore, Tangit solvent cement jointing instruction training was organized together with COOL-FIT 2.0 installation training by GF Piping Systems Australia local Melbourne team. Moreover, deliveries to site with close collaboration and support from the local Reece HVAC Airport West branch made the project installation run smoothly and deliver on time.

## Achieved improvement

Mitchell Green, Industrial Cooling Services, Owner/Technical Manager: "The chiller is now not picking up additional heat load from the pipes achieving capacity much quicker and easier compared to copper. The chilled water is staying cooler a little longer in the system and there is less run hours on the compressors. We also had a few hot and humid days here, there was no condensation! Our client is saving around 45% of their energy costs and is very impressed with the GF COOL-FIT 2.0 system."

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COOL-FIT 2.0 pipes, fittings and ball valves in d63 were installed. PE/SS union adaptors were used to allow flexibility to move the machines.



With the upgrade to pre-insulated COOL-FIT 2.0 system, machines now use a 64 cavity mould efficiently instead of previous 24/32 mould resulting in increased capacities in production.

## Customer benefits

- **No condensation**
- **Saving of energy costs of up to 45%**
- **Avoidance of corrosion and light weight system due to plastic piping system**
- **On-site training and technical support to ensure correct and safe installation**

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