



Garner Enterprises

Responsible Transport

Air Flow SOP

A Transport Refrigeration Unit (TRU) is designed to maintain a product temperature within an insulated container at the temperature at which it is loaded onto the container. A TRU is not designed to change product temperature- Loaded @ 50F will keep it at 50F, not bring it down to say 40F.

The refrigeration process is to remove heat generated by a product (Heat of Respiration). This process requires circulated air from front to rear and all side as well as under the product on the container back to the reefer. The optimal air flow is one air exchange per minute which can be attained with (3200-3500 CFM) which TRU's provide and is contained within the box, no outside air is permitted within. For a produce application- constant air flow is important for most products.

AIR FLOW Standard Operating Procedures

Poor air circulation is the leading factor in deteriorated product. Proper Air Flow is key to maintaining the good quality of your product. All of the following factors should be considered to assure the best air circulation for your cargo:

- Proper air circulation means keeping all 6 sides of your load unobstructed
- Do not obstruct floor under cargo.
- Using 3 way pallets with open air channels is ideal
- Use of Hand Stacking and Slip Sheets are not optimal as they can contribute to blocked air flow from the floor
- Floor channels should be clear of obstructions and debris – shrink wrap / paper etc. can block air flow, cause hot spots, or even be pulled into the air return unit
- Loading patterns should provide adequate air space around the ENTIRE load – this ensures conditioned air can reach the entire cargo providing proper temperature management
- Leave adequate air space between cargo and ceiling to prevent air from short cycling
- Leave adequate space between cargo and sides of trailer – do not pack tight to walls or doors as this blocks air flow
- DO NOT block Unit Evaporator Air Inlet (Return Air) – unit must remain unobstructed or air will not reach cargo
- Trailer should be clean to prevent contamination

