September 2024

Application Note 006

Sealing in Low Temperatures

Bottom Line Up Front: If performing an Aeroseal job at or below 40°F the fanbox requires additional, external heating to be efficient and not waste sealant. The ductwork itself needs to be preheated to accept sealant.

Introduction: Lower inlet temperatures reduce the amount of drying that occurs with sealant particles and increases seal time. This is especially a factor of the job in northern climates. When the temperature falls to 40°F or below sealant can pool in the layflat and reduces the overall effectiveness of the seal, leading to longer seal times and greater possibility of blowing out seals accumulated on larger gaps.

Solution: Additional heat should be added; the following methods are recommended ways to accomplish this. **Note:** No matter what method of heating is used, hot air entering the inlet of the fanbox should not exceed 140°F.

Methods of adding heat to the space: (In order of effectiveness)

- **Bring the unit inside**
  - For dealers who generally run their fanbox from a truck or trailer the first recommendation is to move the fanbox inside the home, this is especially helpful in the retrofit market where the home is already heated. Even if the truck or trailer is heated a significant portion of layflat will be in the elements, reducing the overall temperature of the sealant and air entering the HVAC system
- **Gas, Electric, Propane heaters**
  - External heat can be added through the use of multiple sources of fuel including "torpedo" style kerosene and diesel heaters, high efficiency propane heaters, and even electric element heaters where electrical power is readily available. Be sure to follow manufacturer's directions on appropriate set backs for the heating units as well as fresh air ventilation.

- **Tenting the unit if working outside** (Canopy with walls, adding heat)
  - If the fanbox must be situated outside of the building it is highly recommended to enclose the fanbox in a pop-up canopy with attached walls. Using a temporary structure such as this with the addition of external heat creates a small preconditioned space through which the fanbox can pull warmer air to begin the seal. *Depending on the fuel source, a carbon monoxide (CO) detector should be used in any enclosed space.*

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Preheating the Ductwork

- **Connect the fanbox with layflat to the ducts you are sealing**

- **On the dashboard, click the green status button to access the Preheat Option**
  - This will run the fan and fanbox heaters for a period of up to 15 minutes
  - Repeat as necessary