

**Engineering Supplement****1.0 SCOPE**

The purpose of this procedure is to aid and give guidance in minimizing possible damage of Aerovent supplied equipment due to prolonged storage. Extended storage requires monthly inspections and preventive maintenance.

**2.0 PRIOR TO STORAGE**

Fan bearings (and motor bearings per the motor manufacturer's specifications) are to be greased at the time of going into extended storage. Fan bearings should be packed full of grease prior to storage (for split roller bearings, excess grease will need to be removed prior to equipment start-up). On belt driven units the belts should be removed to prevent a sag/set from forming in the shafts and belts. Belts should be removed, coiled without kinks, placed in a heavy carton and stored in a dry, well-ventilated area. If the belts show signs of deterioration, they should be replaced prior to start-up. If the unit was supplied with a motor, the motor windings should be meggered at this time and recorded for comparison prior to placing in service. If the fan housing was supplied with a drain connection, this plug should be removed to prevent any moisture from accumulating in this portion of the unit during storage.

**3.0 STORAGE PROCEDURE**

Fans should be stored indoors whenever possible where control over temperature, shock and dust is reasonably maintained. If units are to be stored outside in the elements, they should be covered with a water-resistant material. The unit should be reasonably protected from any accidental impacts. Cover the fan to protect coatings and to prevent any foreign material or moisture from entering the inlet or discharge. The bearings should be shielded individually from water and dirt; however, do not tightly seal to avoid trapping condensation. To prevent belt deterioration, storage conditions should not exceed 85°F and 70% relative humidity. Stored equipment should be stored on a clean, dry floor or blocked up off the ground on blocks to prevent unit from setting in any water or directly on the ground. If shock or vibration will be present during storage, the unit may need to be placed on some type of vibration dampening material to aid in preventing brinelling of the bearing surfaces. Vibration levels at the storage site should not exceed 2 mils unless the fan is properly isolated.

**4.0 PERIODIC CHECK**

On a monthly interval, the equipment should be checked to ensure that it has remained in an acceptable stored condition. The fan (and motor if supplied) should be rotated several times by hand while adding enough grease to replenish the bearing surfaces with fresh grease and to maintain a full bearing cavity. Grease used must be compatible with that already supplied in the motor and fan bearings. Note that even when full of grease, bearings tend to take on moisture if the storage environment is not maintained at constant temperature. Do not use high-pressure lube equipment as this may damage the bearing seals. The shaft should be left at approximately 180 degrees from that of the previous month to prevent the shaft and impeller from taking a set in one position. Storage records should be maintained that indicate the above requirements have been followed. Consult the motor manufacturer for proper storage, space heater connection and lubrication if the unit was supplied with one. Refer to Aerovent Installation, Operation & Maintenance Manual IM-140 for additional storage information.

**5.0 START-UP**

When the unit is removed from storage, check for corrosion or damage to the unit and for debris within the fan. All bearing grease should be purged and replenished with fresh grease as per the lubrication decal. On belt driven units inspect the belts prior to re-installation and use. Inspect all fasteners and hardware. The motor should be meggered to verify that the resistance is still at a satisfactory level compared to the value recorded prior to storage. Refer also to the Aerovent Installation, Operation & Maintenance Manual IM-140 for complete start-up procedure.