

## **Maintaining Electric Motors**

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Electric motors power much of the equipment that we use in the greenhouse/nursery industry and will give years of service with a minimum of care. For the best, most economical performance, some periodic maintenance is required.

The following service operations should be performed at least once a year and more often if the motor operates under severe heat, cold or dust conditions. *Caution:* Disconnect power to the motor before starting any maintenance.

**Remove dust and dirt** - wipe dirt and grease from external surfaces. Using compressed air, blow out air passages that are coated or plugged. Excessive dirt causes overheating and wear of moving parts.

**Check bearings for wear** - excessive side or end play may cause the motor to draw higher than normal starting current or to develop less torque. Replace bearings that are worn.

**Lubricate motor** - follow manufacturer's recommendations.

**Check wiring** - repair or replace worn or frayed wires.

**Clean switch contacts** - use an electrical contact cleaner and a brush to clean the switch contacts.

**Replace worn brushes** - sluggish starting and excessive sparking are indications that the brushes need to be replaced and the commutator cleaned. Use fine sandpaper not emery cloth.

**Check pulleys and belts** - replace belts that are worn. Adjust tension so that there is a 1/2 to 3/4 inch deflection halfway between the pulleys. Be sure that pulleys are secure and aligned on the shafts.

Additional information is contained in the 56-page USDA Bulletin No. 2257--*Selecting and Using Electric Motors*--available for \$2.50 from the Natural Resources Management and Engineering Department, University of Connecticut, Storrs, CT 06269-4087.