



an tight seal, and also clamping consideration to avoid start up torque rotation that will isolate the unit from vibration and noise transmission. It is a good idea to use a dampening gasket which mounts on the outside diameter of the fan shell. This minimizes the chances of the fan shell being pushed into the rotating fan. Care should be taken with Acustek designs that the housing gasket does not restrict the air discharge slots.

The upper chamber should provide for separation of the motor cooling air. The upper ventilating rubber gasket should provide for sealing without transmitting any shock from the equipment housing to the motor ventilating cover.

#### **Figure 2**

For tangential discharge units, the motors have three lugs for mounting and the tube discharge provides for collection of the working air discharge. A resilient rubber ring around the outside diameter of the fan shell can provide air sealing and vibration isolation.

The spacer between the motor lug and the unit housing is suggested to avoid overcompressing of the fan housing. An optional mounting method using spring compression to hold the motor in the housing may be advantageous.

The upper chamber should provide for separation of the motor cooling air. An upper ventilating rubber gasket should provide for sealing without transmitting any shock from the equipment housing to the motor ventilating cover.

In all cases, care must be taken to shield the motor so that live electrical components and rotating parts are not accessible.

#### **HANDLING**

Vacuum motors must be handled only by the motor frame or fan case. Do not handle the motor by the lead wires as this could cause damage to the motor.

#### **ELECTRICAL GROUNDING OR ISOLATION**

Provisions must be made in the application for either electrical isolation (double insulation) or grounding (earthing). Lamb supplies motors suitable for either option

ground lead connection, or a ground lead (green or green with yellow tracer). The ground connection should be done with one of these provisions and the connection should be used for no other purpose. Thru bolts or brush holder screws should not be used for grounding. You should contact the appropriate regulator agency for acceptable methods of connecting your machine to a ground (earthing) point.

#### **REPAIRS**

Lamb Electric recommends that all repairs be made at its own Service Center. Warranty repairs must be returned through the original purchaser. For non-warranty repairs, return the motor to:

Ametek, Lamb Electric Division  
Service Center  
627 Lake Street  
Kent, Ohio 44240

You will be quoted a flat repair charge for the non-warranty repair of the motor.

Where brush change is required, the brushes should be changed BEFORE the brush shunt touches the commutator. On reassembly and handling, the lead wires must be kept away from rotating parts and motor frame.

To achieve best performance, the new brushes should be seated on the commutator before full rated voltage is applied. After brush change, apply 50% to 75% of rated voltage for thirty minutes to accomplish this seating. **DIRECT APPLICATION OF FULL RATED VOLTAGE AFTER CHANGING BRUSHES WILL CAUSE ARCING, COMMUTATOR PITTING, AND REDUCED OVERALL LIFE.** The motor will return to full performance after thirty to forty-five minutes of running at full-rated voltage. The motor must not be run with the vacuum air inlet sealed off.

If reduced voltage is unavailable, connecting two motors of similar rating in series for thirty minutes will accomplish the brush seating.