

North American 2600 Hot Air Blowers Instructions

Instructions 2600-2

INSTALLATION

Install blower in an accessible place, being careful not to twist base when bolting to foundation. Mount the blower on a concrete pad whenever possible to prevent vibration. The pad mass should be a minimum of three times the mass of the blower. If blower must be mounted on a structure, a formed concrete base is preferred. If blower must be mounted directly, the structure must be heavy and rigid enough to prevent vibration.

Shim properly before tightening mounting bolts. Use shims between the base and the pad when bolting blower down to prevent twisting or straining the base, which could result in premature failure.

Pipe blower inlet and outlet to manifolds without putting strain on blower housing. Flexible sleeves must be used on the blower discharge and the inlet to prevent strain from the piping, due to expansion or inadequate support. All piping should be supported independently. Use lightweight pipe when possible, but make sure it is air tight. Small leaks can add up to significant air loss.

Make sure that dual voltage motors are correctly connected and connections are clean, tight, and well insulated.

Blowers should never be run with outlet wide open, or without proper restrictions in its delivery line to prevent motor overload.

Make sure starter has proper heater elements. With blower in operation at its maximum required air output, check load and compare with specifications on motor nameplate to prevent damaging the motor.

Make sure impeller rotates in direction indicated by arrow on blower housing.

OPERATION

Before energizing the blower motor, take the following steps:

1. Check to make sure that the circuit breaker supplying the blower motor starter is open and locked out.
2. Check that the blower base is securely bolted to the floor.

3. Check to make sure that flex sleeves have been installed in the inlet and outlet piping.
4. Check to see that the correct heater coils have been installed in the motor starter.
5. Check to see that the motor leads are correctly connected for the available voltage supply.
6. Check to make sure that the impeller and motor turn freely.
7. Check that there is adequate restriction in the air line to prevent overloading of the blower at start-up.

After these checks have been completed:

8. Close the circuit breaker supplying the blower starter.
9. "Bump" the blower by pushing the blower "Start" button and then immediately pushing the blower "Stop" button.
10. While the blower is coasting to a stop, check for correct rotation. A blower running backwards will not develop rated pressure or flow. Correct rotation if necessary.
11. Start the blower. If there are any unusual noises, shut the blower off immediately and check for incorrect impeller clearances or foreign objects in the blower housing or piping.
12. Check the blower amps and discharge pressure at high fire after the main air control valves have been adjusted.

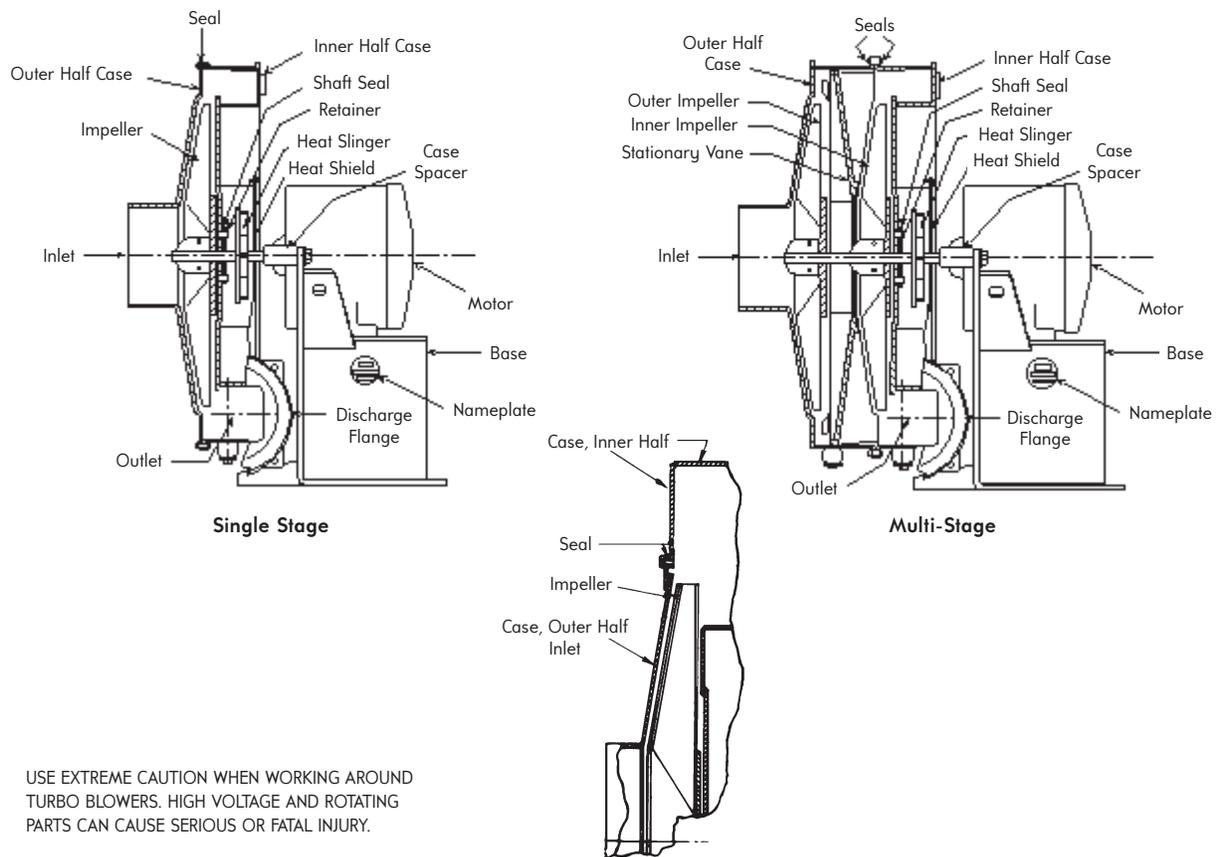
MAINTENANCE

Blower motors are greased when shipped from North American. They should be greased periodically in accord with motor manufacturer's specifications.

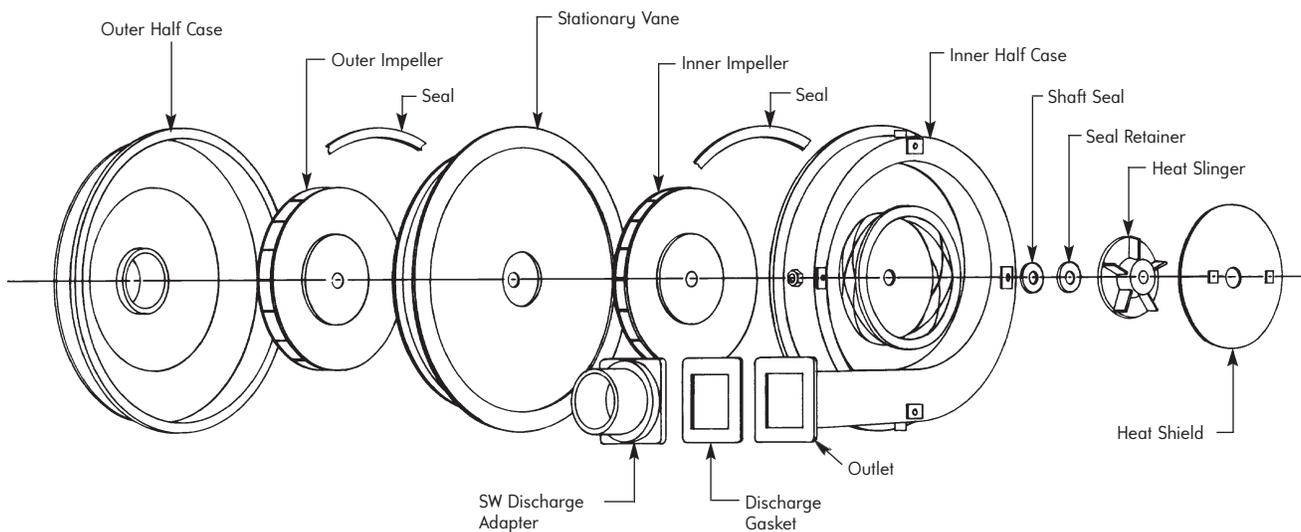
If any blower is not used for extended periods, its shaft should be rotated (by hand) several times every few weeks to redistribute grease.

Monitor motor amperage when adjusting air control valves to prevent overloading.

2600 and 2600-F Blower Parts



USE EXTREME CAUTION WHEN WORKING AROUND TURBO BLOWERS. HIGH VOLTAGE AND ROTATING PARTS CAN CAUSE SERIOUS OR FATAL INJURY.



Exploded view of a hot air blower case assembly. For single stage blowers, there is no stationary vane and only one impeller.

SERVICING

A typical two-stage blower is shown. Single stage blowers use identical inner case and impeller, but omit stationary vane and one impeller, and have a shallower outer case. Three-stage blowers use two stationary vanes, three impellers, and use a peripheral spacer between stationary vanes.

INSTRUCTIONS FOR DISASSEMBLY

1. Remove case flange bolts and nuts.
2. Remove outer case, being careful not to bump impeller.
3. Loosen impeller hub screws and remove impeller.
CAUTION: Impellers are accurately balanced and should be handled with care. Grasp impellers by hubs only.
4. For multi-stage blowers, drive out the two case flange pins from the motor side to remove stationary vanes (these pins support vanes so they do not drop on the impeller). Pins should remain in the vanes.
5. If necessary to remove inner case, make note of location of each shim and spacer.
6. Remove heat shield and loosen the heat slinger.
7. Remove impeller as in Step 4.
8. Remove inner case and heat slinger.
9. Remove motor if required.

INSTRUCTIONS FOR ASSEMBLY

1. Mount inner case to base.
2. Slide heat slinger on motor shaft. Mount motor to base, but do not tighten bolts.
3. Center heat slinger in housing guard and tighten.
4. Mount inner impeller on motor shaft and line up motor so flat side of impeller is $\frac{1}{8}$ " away from inner case all around. Tighten motor bolts.
5. Tighten impeller hub screws snugly.
6. Apply sealant to case flange.
7. Mount stationary vanes with case flange pins and drive them snugly into inner case.
8. Mount impeller shaft, but do not tighten.
9. Apply sealant, mount outer case and bolt in place.
10. Slide impeller forward against inner side of outer case then back again $\frac{1}{8}$ ". Tighten impeller hub screws snugly.
11. Assemble heat shield.
12. Turn motor over several times by hand to check clearances.
13. Start motor and listen for clicking that would indicate misalignment of impellers. If this should occur, shut motor off immediately to prevent serious damage to impellers.
14. Check rotation of impellers according to arrow on case.

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and Insurance Underwriters' recommendations, and care in operation.



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