

Wind Supply

The major components needed to make sound on a pipe/less organs are 1) integrated system of computers that store digitally sampled pipes from pipe organs, 2) amplifiers, and speakers, through which the digitally recorded samples can be reproduced, and 3) a console from which an organist can control the organ.

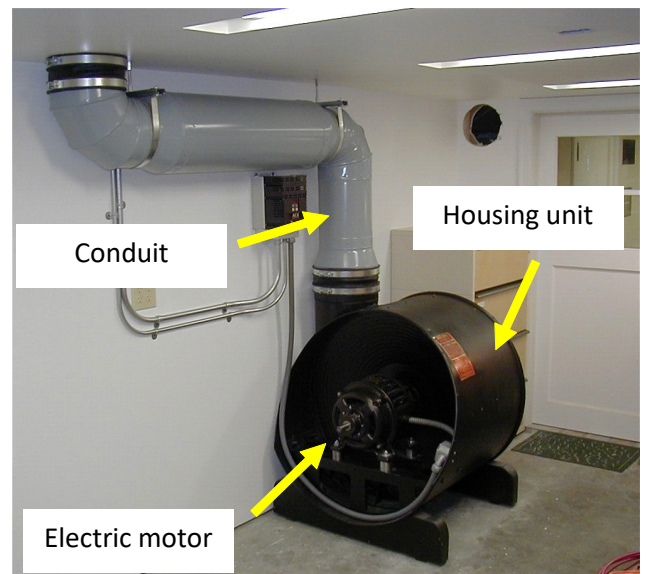
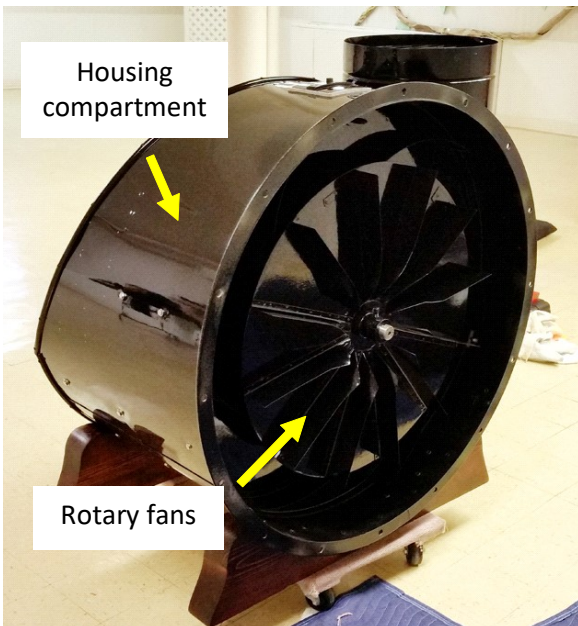
Pipe organs must have the following systems in place to produce sound:

1. A means of creating, controlling, storing, and distributing wind
2. Pipes through which wind can be blown
3. A console from which an organist can control all the systems of the organ

Organ pipes require a supply of pressurized air. The supply of wind must be reliable, and must be regulated in strength and pressure so the pipes can speak properly. Before the days of electricity, air supply was provided manually. More about that in a later unit.

At the turn of the 20th century, electric blowers became the normal means of creating wind supply.

An electric motor is mounted to a housing compartment in which can be found a series of rotary fans that are connected to a motor shaft. The motor turns the shaft which turns the fans, creating a continuous supply of air.



Blowers come in various sizes and shapes, depending on wind supply needed.

- Housing compartment
- Rotary blade
- Electric motor





An organ blower, powered by an electric motor turning a series of fans connected together inside a housing compartment, forces wind through conduits that fan out through the entire organ to air reservoirs where the air pressure is stabilized using weights and springs. Once the air is stabilized, the air escapes from the reservoir into the wind chest on which the pipes are standing.

When the reservoir is full, air escapes from the reservoir through exiting wind lines and is distributed to an air-tight wind chest.



Air from blower enters reservoir.

Weights and/or heavy-duty springs stabilize air pressure.

Air flows to wind chest.

Think of it this way...

In a house with central heating and air, you can “turn on the air.” When this happens, a large blower (usually underneath or outside the house) called the air handler, is activated. The air handler (blower) forces air through ductwork that stretches through the house where it ends up emptying into the individual rooms of the house via registers.

A pipe organ wind system is much the same way!



END