

FAN DESIGNATIONS

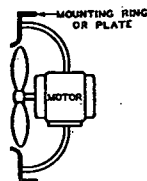
Fig. 5 shows the names and definitions of types of fans recently distributed by the *National Association of Fan Manufacturers* ².

In order to prevent misunderstandings, which may cause delays and losses, the arrangements and designations adopted by the *National Association of Fan Manufacturers* ³ and indicated in Figs. 6 and 7 should be used.

FAN CONTROL

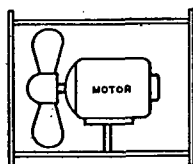
In some heating and ventilating systems it is desirable to vary the volume of air handled by the fan, and this may be accomplished by a number of methods. Where the change is made infrequently, the pulley or sheave on the driving motor, or fan, may be changed to vary the speed of the fan and alter the air volume. Dampers may be placed in the duct system to vary the volume. Variable speed pulleys or transmissions, such as fan belt change boxes, electric or hydraulic couplings, may be used to vary the fan speed. Variable speed motors and variable fan inlet vanes may also be used to adjust the fan volume. All of these methods will give control. From a power consumption standpoint, a reduction of the fan speed is most efficient. Inlet vanes save some power and dampers save the least. From the standpoint of first cost, dampers usually are the lowest in cost. In some installations adjustments of volume are desirable

FIG. 5. NAMES AND DEFINITIONS OF TYPES OF FANS



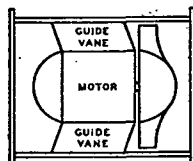
Propeller Fan

A propeller fan consists of a propeller or disc type wheel within a mounting ring or plate and including driving mechanism supports either for belt drive or direct connection.



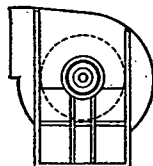
Tubeaxial Fan

A tubeaxial fan consists of a propeller or disc type wheel within a cylinder and including driving mechanism supports either for belt drive or direct connection.



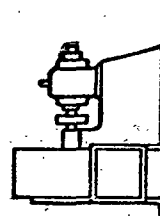
Vaneaxial Fan

A vaneaxial fan consists of a disc type wheel within a cylinder, a set of air guide vanes located either before or after the wheel and including driving mechanism supports either for belt drive or direct connection.

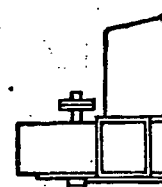


Centrifugal Fan

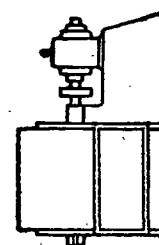
A centrifugal fan consists of a fan rotor or wheel within a scroll type of housing and including driving mechanism supports either for belt drive or direct connection.



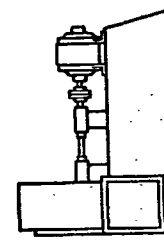
Arr. 5.
For direct drive.
Wheel overhung. Includes: housing, fixed coupling and pedestal only for motor or engine.



Arr. 6.
For direct drive.
Three-bearing arrangement with fan bearing at inlet side. Includes housing, wheel, shaft, one bearing (in inlet), rigid coupling, and pedestal only for motor or engine.



Arr. 7.
For direct drive.
Similar to Arr. 6, but with two bearings on fan, and flexible instead of rigid coupling.



Arr. 8.
Similar to Arr. 5.
But with two bearings on pedestal with motor, and flexible instead of rigid coupling.

Arr. 1.
For belt drive.
Wheel overhung. Bearings on pedestal.

Arr. 2.
For belt drive.
Pulley and wheel overhung. Bearings in bracket on fan housing. Made only in smaller sizes for reversible discharge.

Arr. 3.
For belt drive.
Pulley overhung. Bearings supported on fan housing.

Arr. 4.
For direct drive.
Wheel overhung. No bearings on fan. Wheel mounted on motor or engine shaft. Pedestal for motor or engine.

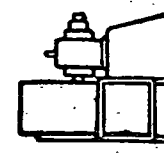
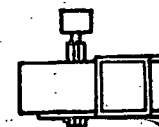
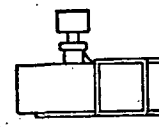
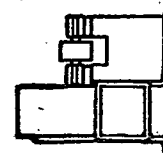


FIG. 6. ARRANGEMENT OF FAN DRIVES