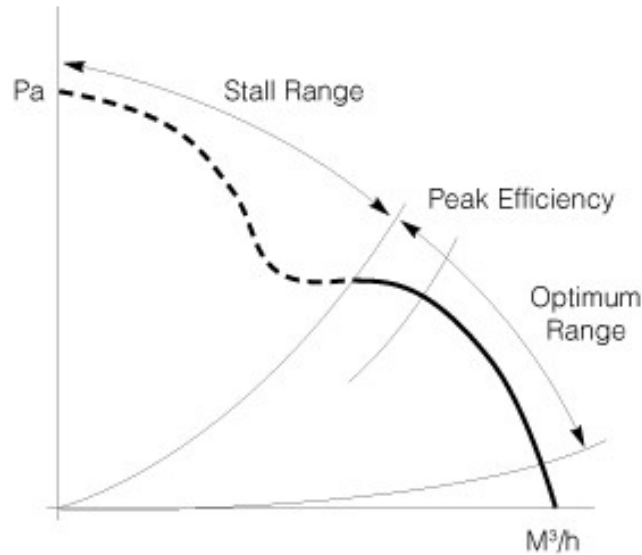


Axial Fan

Best operating area

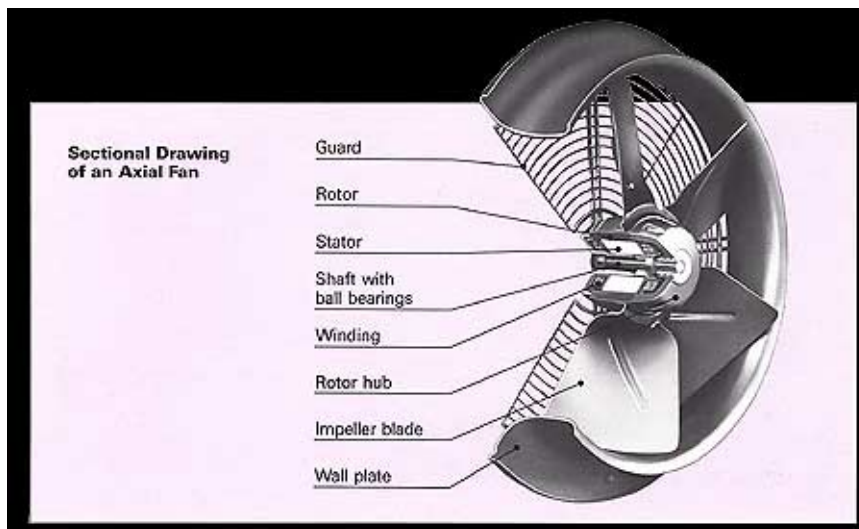
The best operation area is below the stall dip which is generally up to mid pressure development. Please refer to the following graphs showing peak efficiency for optimum selection, and the recommended area if peak efficiency cannot be selected.



Example of an axial fan curve

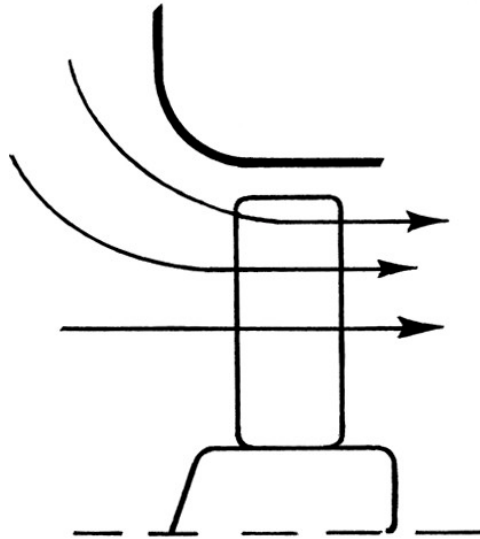
Key components

The key components of an axial fan are showing in the following picture.



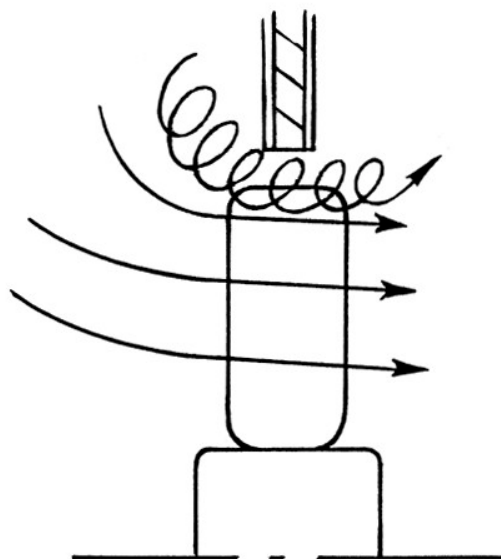
Key components of an axial fan

Best performance of an axial impeller is achieved with the use of a wall plate, sometimes referred to as a wall ring.



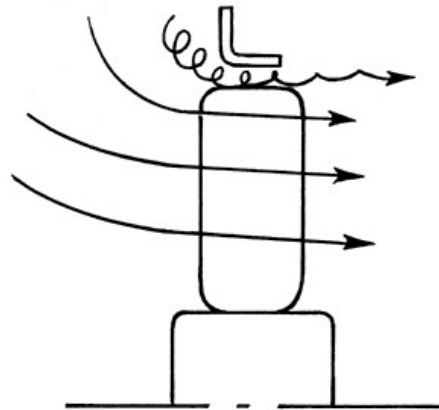
Sketch of axial fan showing smooth airflow with use of large radius wall ring

Used without a wall plate or wall ring, for example in a plain orifice hole will reduce the performance and increase noise. Air turbulence around the tips of impeller raises the noise level and reduces the effective diameter of the impeller, which reduces the airflow performance.



Axial fan in orifice showing high turbulent airflow

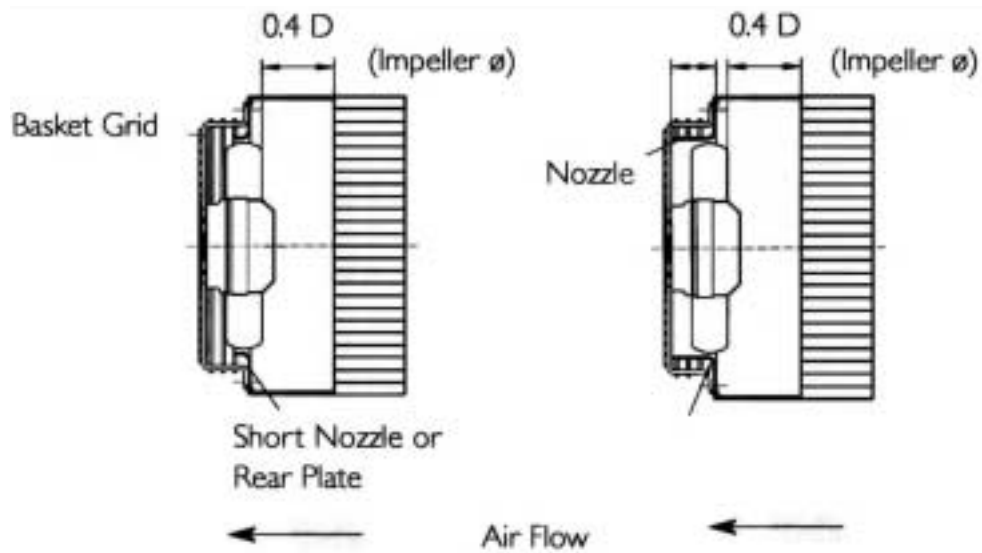
A compromise is a small radius ring to help guide the airflow through the impeller. This is not as good as a large radius wall plate but is generally cheaper to manufacture.



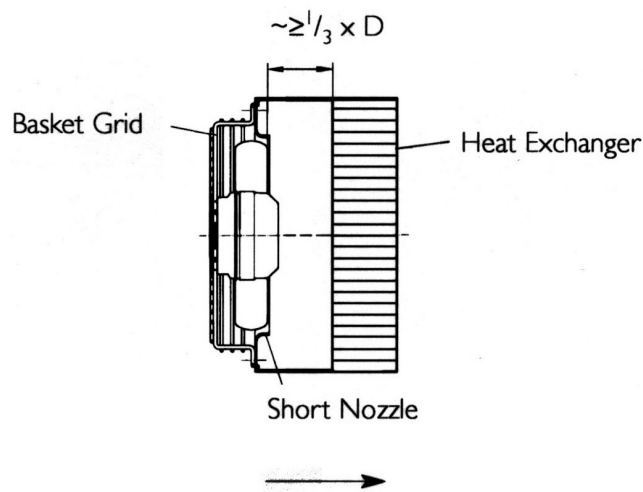
Example of an axial fan in small radius wall ring showing reduced turbulence

Mounting Arrangements

To obtain optimum performance the following minimum distance should be considered.



Example of axial fan sucking through coil



Example of axial fan blowing through coil