

New main motor



For further information on axial fan retrofit solutions please visit www.howden.com or contact your local Howden company.

A new main motor is a fan upgrade with minimal outage time. When you install a new main motor, you can keep the foundation, the ducts, the static parts and most of the rotating parts as well as the control system.

Changes in the power plant processes such as for instance installation of FGD or SCR create new performance demands.

If the fan has extra performance capacity available, higher performance can be reached only by changing the motor and minor rotating parts and keeping the complete fan design.

Installing a new main motor requires an extensive test of the fan and its foundation. The test is especially developed by Howden and will be followed by a number of calculations to check the stiffness and natural frequencies of the fan foundation, the rotor dynamics and possible modifications of the rotor and accessories.

Fig. 1 shows the performance curve of an induced draught (ID) fan where the motor was designed to handle a fairly low capacity. However, changes in the plant processes caused higher demands for both volume and pressure performance.

By keeping the existing motor the fan would not be able to utilise the performance capacity of the grey area of Fig. 1.

A motor with a bigger power output was installed making it possible to use the fan capacity resources avoiding the installation of a new fan.



New motor for a vertical fan

