A change in the power plant process might create a demand for bigger volume performance of the fans installed. By increasing the impeller outside diameter and keeping the existing hub, it is possible to increase the volume flow of the fan considerably, improving the efficiency of the fan.

Compared to installing a brand new fan the savings are considerable as several existing parts can be reused.

Moreover, we will create optimal special tailored solutions to avoid space problems in connection with the fan retrofit.

Upgrade can be done on most fans although we advise you to let Howden evaluate the fan and its foundation to give you an overview of which parts to renew and which to preserve. For optimum safety it must also be secured that the foundation meets the Howden requirements of foundation stiffness and frequency.

The primary effect of increasing the hub ratio is the achievement of a bigger volume performance of the fan.

Since the blades are going to be changed one might consider either keeping the existing blade design or providing the impeller with another of the Howden blade profile designs to suit the new demand to an optimum.

Example

By increasing the impeller outside diameter it is possible to increase the volume performance of the fan considerably and at the same time improve the efficiency of the fan. The red curve shows the new possibilities of the fan.