

Deflector cone



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

With a deflector cone you can avoid wear and damage to the impeller and blades. It will improve the lifetime of the fan, you will get a safer operation and you can reduce the maintenance costs of the fan.

Flue gas or air flows with heavy dust load and high velocity might cause severe wear and damage on the impeller blades and hub of your axial fan, especially at the root of the blades where the highest stress level is found.

The dust particles hit the blade base and over time a cavity in the leading edge at the blade base develops (see photo). In severe cases the cavity might lead to cracks in the blade material.

By installing a deflector cone (deflector ring) on the inner cylinder upstream the impeller it is possible to “move” the dust load from the blade root to a higher position of the blade leading edge.

We cannot take away the heavy dust loads from your fans but we can assist you in reducing its impacts on the blades and hub.

Let Howden evaluate the optimum aerodynamic solution for your fan to avoid wear at blade root and lower blade parts.

Fig. 1

The figure shows an example of a dust composition with a high concentration of large particles. The wear on the blades comes from heavy load dust particles that often seem to concentrate in areas close to the inner cylinder.



Blade material eroding at blade root

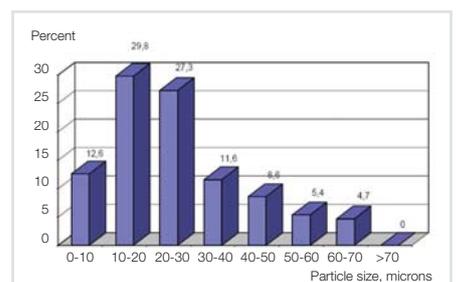


Fig. 1.

Fig. 2.

The deflector cone moves the dust away from the blade root.

Wear of the blade will be moved to a higher position on the blade leading edge.

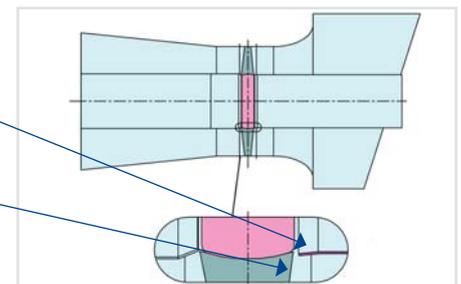


Fig. 2