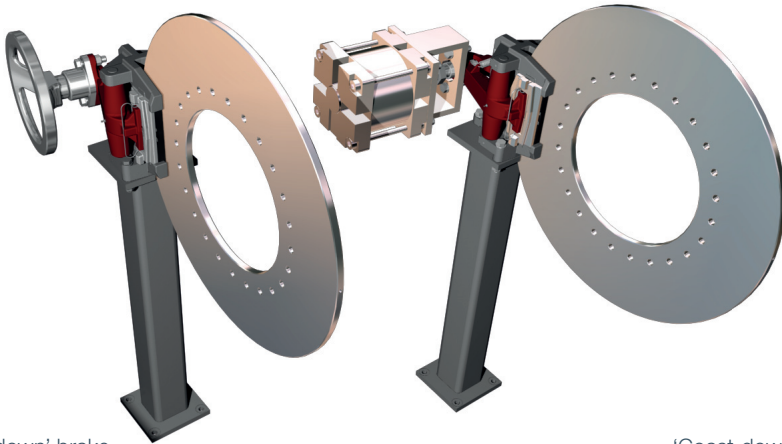


Brake



'Hold-down' brake

'Coast-down' brake

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

Installing an upgraded brake will prevent the fan from rotating during standstill. This enhances safety for the personnel working on the fan and it reduces the risk of damage to the sleeve bearing during coast-down.

During standstill of the axial fan e.g. during maintenance periods, normal draught may cause the fan to rotate unintentionally thereby presenting a safety hazard for the personnel working on the fan.

Today most main bearing assemblies with sleeve bearings are supplied with a brake, however, this has not been the case previously.

Howden offers two types of brakes:

A hydraulic or pneumatic 'coast-down' brake assisting the fan to come to a complete stop.

A manual 'parking/hold-down' brake used only when the fan has come to a complete stop.

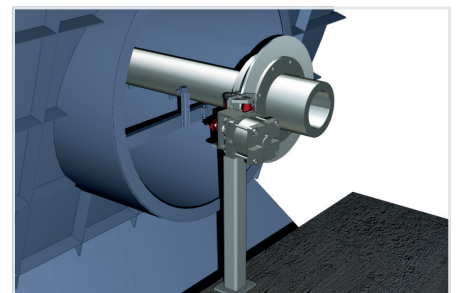
The actuation of the brakes can be either by means of disc or drums according to customer requirement. However, Howden recommends the disc type as the most effective solution.

The final brake size and force necessary to serve the purpose is determined from rotor polar moment of inertia, required time of coast-down, etc.

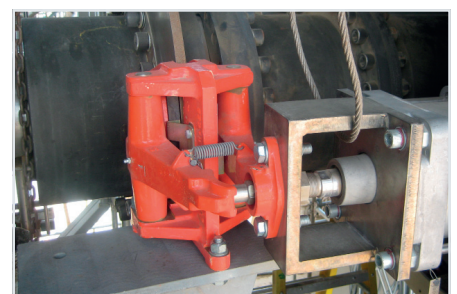
Installing a new brake or re-using the existing brake

The brake is installed on a pedestal, bolted to the foundation in order to absorb the braking forces. In connection with a 'coast-down' brake a tachometer is necessary to actuate the brake at correct rpm.

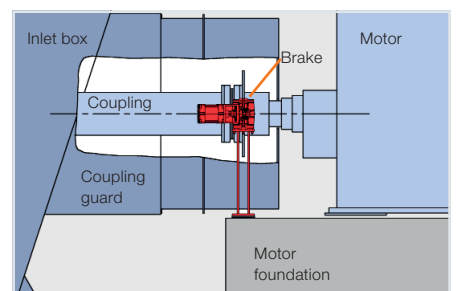
In case of a major upgrade and retrofitting of a fan, it may be possible to re-use the existing brake depending on the brake force.



Example of installed brake



Hydraulic 'coast-down' brake



Example of typical installation