Eliminate blade calibration problems and prevent corrosion of regulating drives with VARIAX® retrofit

Howden recommends a new retrofit kit to solve issues with blade calibration and corroded regulating drive bearings in VARIAX® fans.

In environments with condensation and flue gases, the regulating drive bearings may corrode and the consequence is that a torque switch alarm will be launched which can cause a boiler trip. The new retrofit kit addresses the corrosion matter as well as the issue of loss of fan blade calibration.

Howden has developed a new spares kit that prevents flue gases and condensation water entering the regulating drive bearings. It also provides a keyed location for the regulating drive lever and crank eliminating the need for the recalibration of the fans during maintenance cycles.

In cases where regulating drive bearings corrode, it may be necessary to replace existing parts.

With a retrofit kit, you will get the benefits of easy installation during a standard maintenance cycle, improved reliability and availability of the fan.

Main components of the spares kit

- Seals
- Shaft with keyways
- Inside crank with keyway
- Outside regulating arm with keyway
- Bearing houses
- Screws and nuts
- Special grease

The outside regulating arm in the kit is in acid proof material to avoid corrosion.

Prevent corrosion of the regulating drives with the VARIAX® retrofit kit

The position of new crank and fork are fixed and it is machined with keyways so no adjustment is needed on-site.

This minimises the time needed for installation and also it reduces the chances for incorrect installation.

Furthermore, it eliminates the possibility of a loose connection between the regulating shaft and crank.

Advantages

If the maintenance scheduled is adhered to, you will extend the service lifetime and availability of the regulating drive assembly and ensure a more reliable fan operation.
## Changes from the old design to the new design

<table>
<thead>
<tr>
<th>Original design</th>
<th>New retrofit design</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Original design" /></td>
<td><img src="image" alt="New retrofit design" /></td>
</tr>
</tbody>
</table>

The new Retrofit design addresses all of the issues around lubrication and bearing failure by providing a totally enclosed chamber where the bearings are housed.

The Retrofit solution positions the internal crank and external regulating arm with keyways so no adjustment is needed on-site.

This minimises the time needed for installation and also it reduces the chances for incorrect installation of the internal crank or regulating arm.

---

**VARIAX® fans designed after August 2017 will be mounted with this design as standard.**

---

## New design

![New design](image)