

---

**Water treatment industry**

---

Anglian Water

---

SKF ConCentra roller bearing units

---



## Maintenance made simple at sewage treatment plant

By using SKF ConCentra roller bearing units, the maintenance team at Anglian Water's Canwick STW sewage treatment plant, have been able to reduce the time required to replace damaged filter-bed wheel bearings from six hours to just one hour, saving time, money and resources.

The sewage treatment plant, near Lincoln, has four primary and four humus tanks, with each filter bed being spanned with bridge units which run on a carriage and wheel assembly driven by an electric motor. The bridge unit is in operation 24 hours a day, seven days a week, which results in reduced service life for the components used, in particular, the sprocket and chain drive, which needs to be replaced after approximately 12 months.

Before the SKF solution was introduced, in order to renew the taper-lock drive sprocket, the wheel assembly had to be stripped out of the carriage and transported to a maintenance workshop where the assembled unit could be broken down and the drive sprocket replaced. A spare wheel was typically fitted to allow the bridge unit to continue to run while maintenance was being carried out; this could take over five hours. During disassembly, the bearings would invariably be damaged and, therefore, also need replacing.

A new set up was required to solve these problems, and SKF provided the ideal solution with its SKF ConCentra roller bearing units. These bearings can be quickly and easily released from a shaft with a "pop" as the set-screws are tightened. The unit comprises a patented inner sleeve which carries a series of tapered steps. By tightening up set screws on the front of the bearing, it is forced up these steps until it clamps the shaft in a full 360° interference fit. Set-screws on the rear face are then adjusted to release the unit.

With the bridge unit fitted with these innovative bearing units, the sprocket can now be replaced without stripping the carriage assembly from the bridge unit by simply releasing the SKF ConCentra roller bearing units using just an allen key and a spanner, withdrawing it, and removing the taper-lock drive sprocket.



Reassembly with a new sprocket is then a straightforward process and the original bearing can be reused, saving component costs as well as time.

Norman Ladds, the engineer in charge of the maintenance team at the plant, commented, *'We've seen a saving of almost £150 in reduced labour and materials for each bearing overhaul we've carried out so far, and with 200 or so bearings to look after, there is a huge potential saving to be made on Canwick's annual maintenance bill. So far, we've replaced the conventional bearings with the SKF ConCentra design on four wheels on the biological filter beds, but they've been so beneficial that the plan is now to replace all of the filter bed bearings.'*

**SKF (U.K.) Limited**

T: 01582 490049

marketing.uk@skf.com

www.skf.co.uk

© SKF is a registered trademark of the SKF Group.

© SKF Group 2010

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB CM/S6 10600 EN.UK · February 2010

Printed in England on environmentally friendly paper.

