

## Schaeffler Global Technology Solutions

### Pulp & paper

#### Visy Pulp & Paper, Australia

#### Cost Savings through Changing to an FAG SACR Bearing

Visy Pulp & Paper is one of the world's leading packaging, paper and recycling companies. 98 percent of the recycled paper is a post consumer waste product. The company employs over 5 500 people and operates in over 120 sites across Australia, New Zealand, Thailand, Vietnam and Malaysia and has trading offices in Singapore and China. Visy also has a 'sister' company which employs 3 500 people in North America.

#### Challenge for Schaeffler

As the dryer section tender side bearings were prematurely failing due to lubrication issues, Visy requested assistance from Schaeffler Australia. To solve the problem Schaeffler's proposal was to replace the original toroid roller bearing with an FAG SACR bearing with centre feed lubrication. The replacement also meant that Visy allowed modifications to the housing assembly for application purposes.

#### Schaeffler Solution

Experts from Australia provided Visy Pulp & Paper a technical solution by recommending the FAG SACR bearing with centre feed lubrication setup. A six month testing phase followed in which an application engineer from Schaeffler installed after a suitable preparation the first SACR bearing at Visy Tumut.



## VISY

#### Technical Information about the Plant

##### VP9 Paper machine

##### Speed:

290 RPM

##### Roll width:

8,3 m

##### Roll outside diameter:

1,5 m

##### Roll weight:

34 t

##### Production capacity:

1,3 M t/a

##### Number of machines:

8

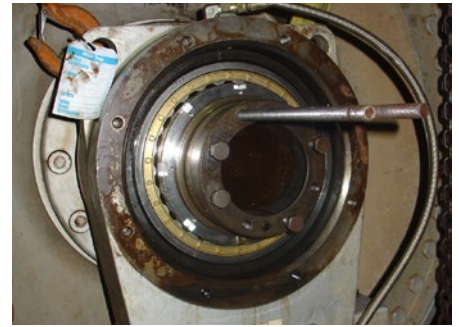




FAG self-aligning roller bearing (SACR)



Slings and chain blocks around the dryer



FAG SACR ready for working

## Customer Benefit

Before the first FAG SACR bearing was installed in May 2007 the former roller bearings had to be replaced every twelve months. During the operation in the five years of the new installed SACR bearing no replacement was necessary. The use of the FAG SACR bearing has increased production time and reduced down time. The FAG SACR bearing has unique features. It can handle misalignment and thermal expansion. The inner ring can be offset to the outer ring prior to machine start up to allow for thermal expansion. An additional benefit is that this solution has minimized vibration levels and decreased operation temperatures.

### Cost savings

|                                     |         |
|-------------------------------------|---------|
| Savings per bearing conversion p/a: | € 4 200 |
|-------------------------------------|---------|

|                                                |                  |
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| <b>Savings after five years (20 bearings):</b> | <b>€ 420 000</b> |
|------------------------------------------------|------------------|

## What's special

The solution can also be applied to other paper machines if issues arise in the dryer section tender side setups. The FAG SACR bearing is a retrofit solution which can replace spherical roller bearing (SRB) without any change in the lubrication intake.

### Technical Information about the Solution

#### Bearing type:

FAG SACR 565688K.C5.W209B

Width: 120 mm

Bore diameter: 220 mm

Outside diameter: 370 mm

Original bearing: SKF C3144KHA4C3

#### Installing procedure (important steps):

- Dismount the original bearing
- Drill a lubrication hole
- Install a 5 mm spacer inboard
- Mount of a SACR bearing
- Modify the internal spigot of the housing end cover
- Reconnect oil inlet and outlet pipe work