Wafer World

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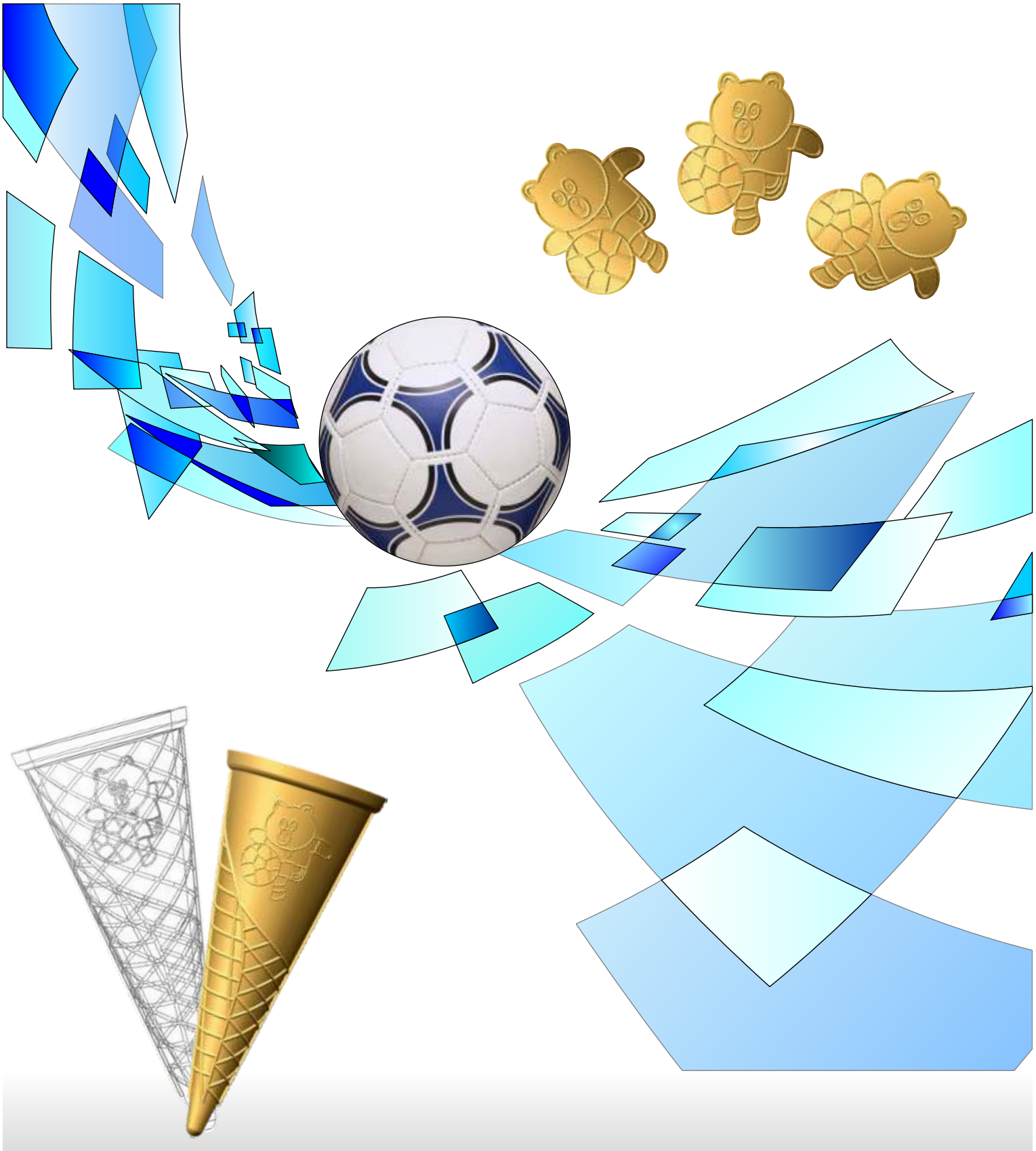
The regular insider information from R&D Engineers

2014 07



Contents

TECHNICAL

Case Study

Oven Conveyor Bearing Lubrication in Food Industry

KISBIS Food Industries finds solution with Kluebertemp GR AR 555

CUSTOMER BENEFITS WITH KLUBER PRODUCT

- Longer Re-Lubrication interval
- Can withstand temp upto 250 deg C
- No carbon formation, even after 7 Months
- Local services and availability and competitive price

About Customer :

M/s KISBIS Food Industries is located in Ahmedabad manufacturing and exporting Cream Wafer Biscuits & Chocolate Wafer Biscuits.

Plant Production Capacity : 800 Kg Per Day.

Business Issue

Customer was using Berutox VPT 64/2 Grease in R & D make Oven since last 2 years. The average Re-Lubrication interval with Bechem product is 10 months. They found carbon formation problems and also there is no service from local channel.

Customer objective :

To develop alternative option, for said application, which should be very competent in this field, and competitive as well.

We met their criteria and took opportunity to introduce our **Kluebertemp GR AR 555**, with competitive price.

Application Detail

Machine Name	: Baking Oven
Make	: R & D Engineers-Hyderabad
Year of MFR	: 2010
Total	: 02 Machine
Oven Length	: 50 Feet
Average Speed	: 20-25 RPM
Average Temp	: 2100C to 250 0C

Method of Lubrication : Manual

Solution

Intially they gave us trial order for 1 Kg. Jointly we carried out trial and by end of April 2014, following is the trial report :

1. No Carbon formation at edges of Roller Bearing

2. No color change after 7 months.

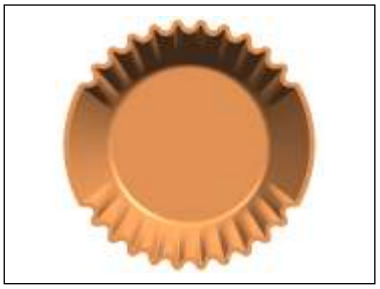
3. No cake formation

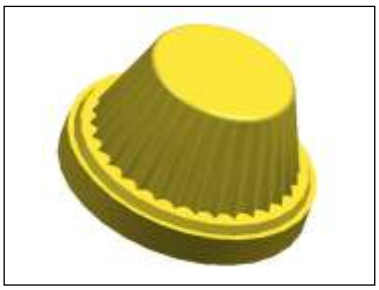
Picture on How we Lubricate Roller Bearing

Product manufactured by M/s KISBIS

PRODUCT IDEAS

INNOVATIVE PRODUCTS





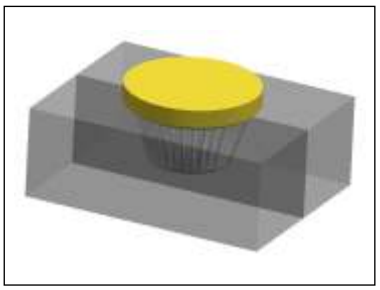


PHOTO FEATURE

FORTHCOMING EXHIBITIONS

Sri Lanka

Date: 22nd Aug.-24th Aug., 2014
Hall No.:A, Stall No.:72
Venue: Sirimavo Bandaranaike Memorial Exhibition Centre, Colombo, Sri Lanka

India

Date: 18th -19th Sep, 2014
Stall No.:C7 & C8
Venue: Bombay Exhibition Centre, Mumbai, India

Dubai

Date: 09th -11th Nov., 2014
Stall No.:Z-D80 in Zabeel Hall
Venue: Dubai International Convention and Exhibition Centre. Dubai

Process & Cleaning in wafer Industry

Temperature affects the following processes in baked goods

Dough Stage
20 - 25 C - Temperature of the wafer dough mixture
40 - 50 C - Reaction of the rising agent beginning

Baking stage
sticking of the wafer mixture (dough)
70 C - Development of wafer structure while baking.
70 C- 100 C - Reduction of moisture to less than 1% of the wafer mixture
140 - 150 C - Caramel production
150 C - Production of roast material charring.

These are the processes going during the baking process.
Due to the short baking time, the time reaction, such as action of the enzymes and sticking of the starch, are of an essentially lower level than is the case for baking other bake-ware.
By the rapid heat action on the wafer dough the enzymes contained in the flour are inactivated. The sticking level of the starch is lower due to rapid dehydration.
The starch develops mainly dextrin's by thermal reduction and in this way it contributes to the crispness of the wafer sheet.

Sticking Wafers

As the wafer plates cycle through the ovens completed , the top plate automatically opens up and if everything that has gone before has been correct , the now completely baked wafer sheet should easily slide away and down from the bottom plate. A flick of a knife blade or a jet of air aids what should be easy removal when either is applied at a suitable position and angle.
However, in many plants undue sticking of the wafer sheet to either plate, particularly the bottom one is quite commonplace.

Some of the causes of this are noted here .
Anything in the formulation or any technique that encourages the slightest build-up of carbon on the plates. Particularly at the corners, is to be avoided. The plates, when new, are given a' finish' which may be a high polish due to buffing. If for any reason this finish is roughened by mal-treatment or if it receives a carbon deposit then sticking is inevitable.
The effects of undue wear mentioned under lubrication or ir-regular maintenance can also unduly affect wafer sheet release. The use of milk/milk-powder and sugar in the batter are often blamed for sticking troubles, and whilst it is agreed that these ingredients do cause this tendency it is suggested that lack of an effective cleaning routine may be more responsible.

Cleaning The Oven

Cleaning must be done on a routine basis not at those times when sticking problems arise. Certainly not less than once per week the plates should be inspected, brushed with a stiff brush to ensure removal of any debris from the “reeding”, and then carefully wiped over with a cloth lightly soaked in a vegetable oil- this when the plates are slightly warm. Some operators refer to this as 'curing the plates'.

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