



NEWS

World leaders in handling and feeding technology

CASE STUDIES

RNA contribute to Shrove Tuesday

In the UK Shrove Tuesday is known colloquially as Pancake Day or Pancake Tuesday. Pancakes are served immediately after cooking and are traditionally served with a sprinkling of sugar and a dash of fresh lemon juice this is where RNA formed an unlikely alliance with a customer.

RNA recently completed a project for Unilever that has delivered new efficiencies and cost savings to the process line.

When RNA were contacted with a request to handle one of UK's most famous food condiments JIF Lemons, it was both a challenging and interesting project to tackle. JIF lemon juice comes in a squeezable yellow lemon shaped plastic container. The irregular shape of the components posed the most challenging part of the project. The request from the customer was to feed 50 components per minute from two outlets and present the component axis vertical open side uppermost two at a time.

The system was supplied with twin bowl feeders a puck loading station, orientation station, transfer linear and accumulation conveyor. Two opposite handed bowl feeders feed the lemons at random into pucks. Each bowl releases a lemon on demand via a Tic Toc type escapement, the lemon sits in the puck either way up. The puck is released to a further station where a sensor checks for the presence of the open end of the lemon. Open side up lemons are released onto an accumulation conveyor

and the open side below lemons are blown out of the puck into a tube which is fitted to a vacuum generator. This tube inverts the Lemon through 180 degrees and drops the Lemon into a waiting puck resulting in the correct orientation.

The JIF Lemon 'puck' system features a simple reliable accumulation and a consistent output rate. The 'pucks' allow reliable and robust movement of the Lemons around the system with no damage to the outer container. Efficiency for the overall machine and process line increased dramatically with a reduction in down time, resulting in higher output and shorter lead times to the high street.

If you are interested in more details of the "Lemon" system or have a process that needs improving please contact Roddy Kearey (roddyk@rna-uk.com).

Jason Moore Unilever Maintenance Manager commented:

'RNA worked with us in a flexible manner and cooperated closely during the design process.'

'The resulting final overall design showed initiative in the way the solution was delivered and great effort was put into simplifying the equipment.'

'The People within RNA are very cooperative and helpful.'



RNA vibrating bowl feeder feeding JIF Lemon

Welcome to the January issue of RNA newsletter

In this issue
RNA contribute to Shrove Tuesday

Advice on Maintenance of your Feeding Equipment
- *The Basics*
- *Top Tips from the Technical Director*

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Advice on Maintenance of your Feeding Equipment

THE BASICS

RNA equipment is synonymous with quality and reliability and strives to maintain its reputation in the field.

Often equipment supplied is run on a 24/7 basis leaving little time for preventative maintenance, below are a few suggestions to help maintain peak performance.

If possible try to inspect the equipment prior to the start up of a production run, if the equipment has been recently purchased always read the manual before operating the machine. Check the utility services (voltage, compressed air, and electrical equipment) before running the equipment often ancillaries such as sufficient air supply are overlooked.

In the case of a bowl feeder the internal lining should be clean and free of dust.

If possible, have a checklist available; be sure that each operator is familiar with the operating instructions supplied. RNA supply clear instructions with each feed system with pre set parameters documented as a quick reference guide.

OEM spare parts are available off the shelf but for unforeseen

problems try and carry minimum spares and be aware of the fitting procedure. If a problem occurs off the shelf spare parts allow you to schedule a replacement at the most convenient time.



TOP TIPS FROM THE TECHNICAL DIRECTOR

RNA Technical Director, Mick Keane, gives his advice on maintenance of bowl feeding systems.

Regularly clean the machine

"Machine cleaning is often a standard requirement in the pharmaceutical and food industries. In fact, all feeding systems will benefit from regular cleaning to improve the reliability and life-span. Debris and dust on the component tracks can decrease the performance of the

feeder; in this case, cleaning a feeder is recommended at the start of a production run."

"RNA can provide simple dust covers or even full acoustic covers to protect the equipment."

"Check the bowl top is tightened down correctly and that the area surrounding the feeder is clean and tidy. Any cables should be fastened securely and away from edges of the machine."

"Spring packs and coils should be periodically checked, cracked or rusted spring packs should be replaced immediately. Coils should be set at the correct factory tolerances as set out in the manual."

"RNA drive units are low amplitude and as a result have low noise characteristics any increase in noise levels should be investigated immediately."

Training is recommended

"Most special purpose machines perform in different ways. RNA continues to develop each system's performance to meet customer's requirements, although it is beneficial if operators have received training. Training helps the operator achieve maximum



Mick Keane RNA Technical Director

machine performance and take ownership of the equipment. To meet production goals and maximize equipment investment, I advise operators to be involved at the beginning of the project and the FAT even at the concept of the system."

Set up an in-house maintenance plan

"Scheduling a maintenance plan focuses on setting up core maintenance tasks and ensures the machines performance. A maintenance plan can include routine inspection, testing and performance trials and cost analysis."

"Setting up a maintenance plan is a cost-effective way to

maintain peak performance of equipment."

"If you look after RNA equipment you will be rewarded with many years of reliable production."

DO YOU KNOW?

RNA offers flexible packages to allow you to select the relevant spare parts for your feeding system. From a bowl feeder drive unit spring and shim pack to a spare hopper belt RNA have an off the shelf stock of spares available world wide throughout the RNA network. All spares have been designed and developed in house to compliment RNA equipment and are simple and easy to fit on site. Upon request RNA can provide a recommended spares package for old and new equipment and can also provide training packages to suit maintenance departments. Fitting of spares and general house keeping alongside the basic theory of bowl feeding are included on the day.

Today's automation requires accurate control and operations. RNA's professionally trained staff can help you understand the value of your system and minimize running costs.

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