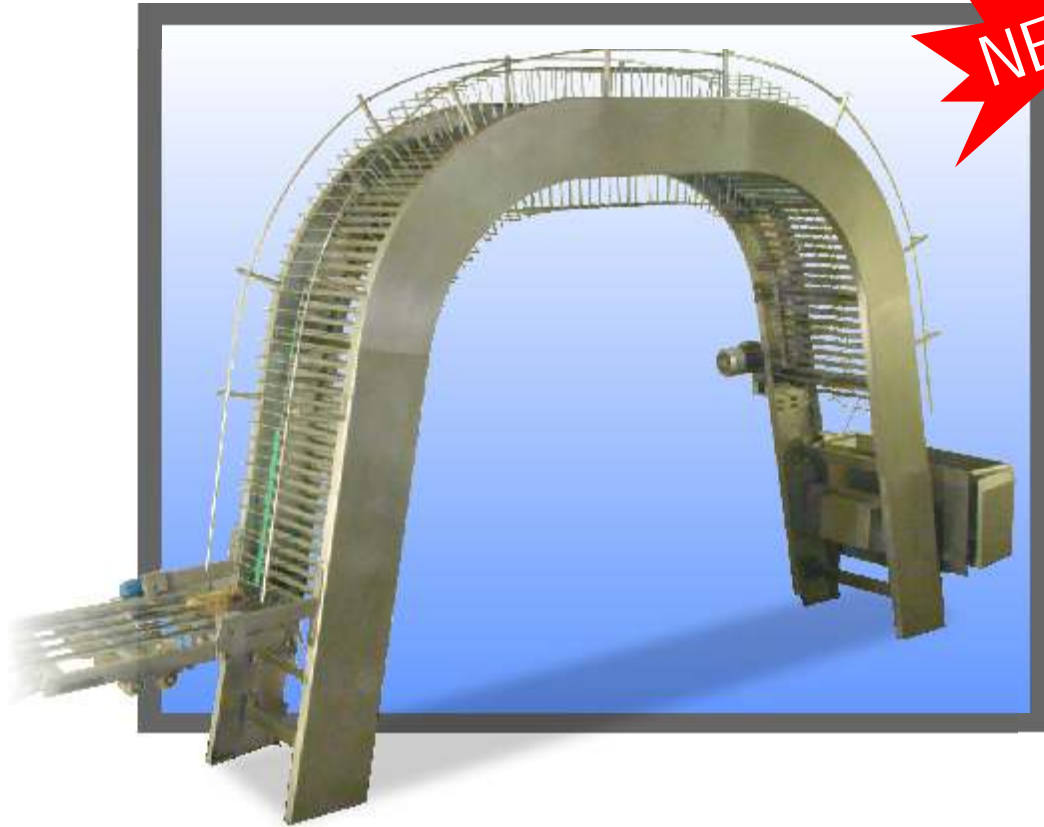




Wafer Sheet Cooler - "SC6" Series



Our latest addition to the 'WA' Series plants, supporting equipments.....

Silent Features!

- Easy Cleaning
- Modular Design
- Smooth Operation
- Full SS Construction
- Sheet Collector (optional)



'SC6' Installation at Clients Factory

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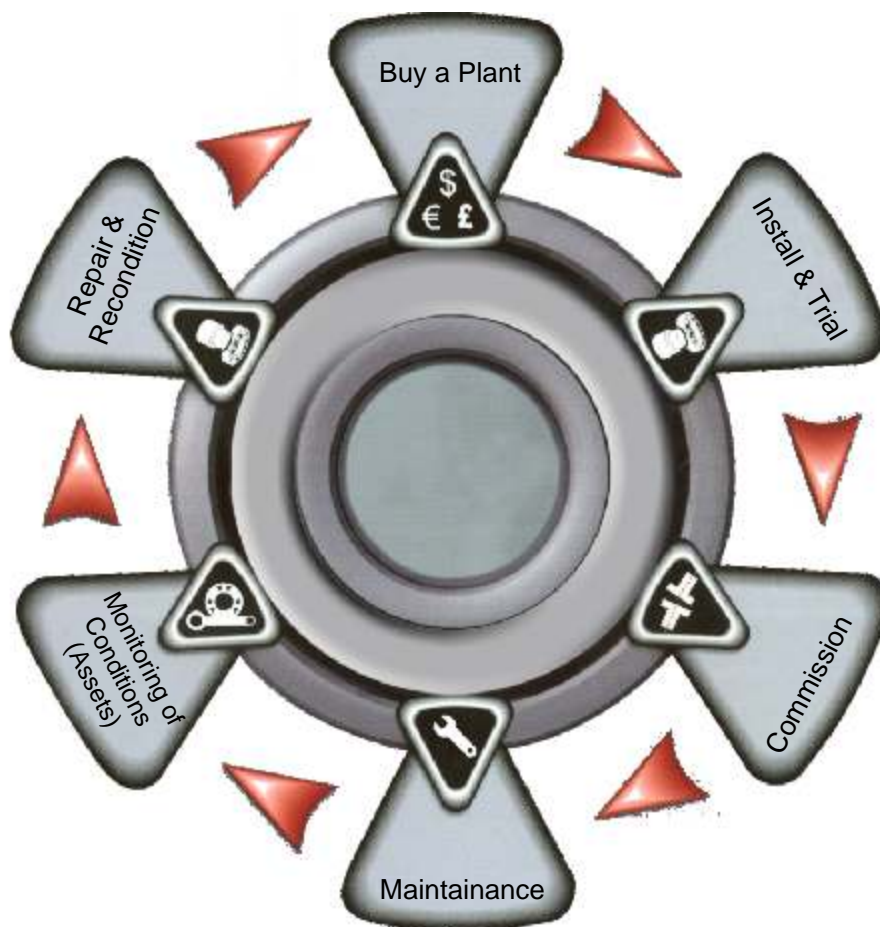
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Extending Machine Life

Today maintenance managers face a difficult task: Although their staff may be very good, they have a larger group of machines to look after and may not be able to follow precision maintenance practices. In addition, equipment maintenance is becoming more complicated because of ongoing technical advances, and environmental and safety laws are increasingly strict, placing more pressure on this function than ever before.



Despite all these challenges, maintenance personnel are driven by management to maximize machine uptime to increase productivity-often with a reduced budget.

From cost center to profit center Recognizing the need for supplemental resources, R&D has focused on combining its broad range of products and industry knowledge to address specific plant maintenance and reliability needs. Our additional goal is to help our customers manage maintenance costs more effectively to reduce cost and increase productivity.

By combining its knowledge of process & plant manufacturing we design and implement solutions that go beyond corrective maintenance. Depending on need, customers can either choose stand-alone services such as spare parts replacement, dies or combine them into an all-inclusive contract strategy for a plant overhaul.

PRODUCT IDEAS

INNOVATIVE PRODUCTS



VOCATIONAL VISIT TO OUR PLANT



FORTHCOMING EXHIBITIONS



Food Pro - Chennai

Date: Oct 29-Nov 01, 2009
Stall No.: 59
Venue: Chennai Trade Centre,
Nandambakkam, Chennai,
Tamil Nadu, India.



INDEE - Indonesia

Date: December 02-05, 2009
Venue: Jakarta International
Expo Kemayoran,
Jakarta, Indonesia



ProSweets Cologne

Date: Jan 31 - 03 Feb, 2010
Venue: Cologne International
Expocentre, Germany.

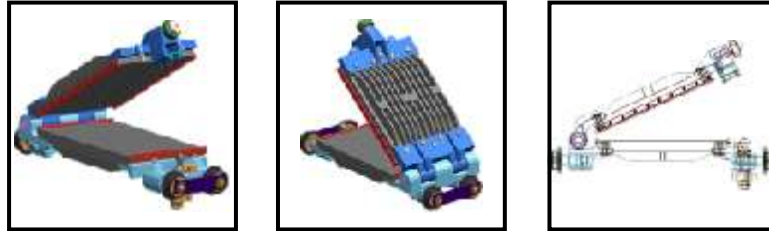
MANUFACTURING TECHNOLOGY

Wafer Biscuit Manufacturing Science

Part - 01

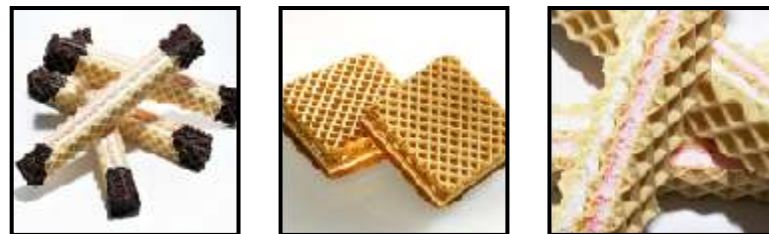
1.1. INTRODUCTION

The principal ingredient of wafers is wheat flour and the products undergo a process of heat treatment which reduces the moisture content of the products to a low level. Wafers and Wafer products are generally regarded by the consumer as biscuits and they are frequently manufactured and sold by biscuit companies. Wafers consist essentially of a dried, highly aerated starch gel in which the starch granules have been completely gelatinized and dispersed.



Wafers are baked between heated, engraved metal plates. The wheat flour water mixture to which other minor ingredients may be added has more the consistency of a batter, although in some plants or factories it is still referred to as a dough. The majority of commercial wafers are baked in the form of large flat sheets which are subsequently sandwiched with layers of a "fat-sugar cream" (e.g. 5 layers of wafer separated by 4 layers of cream). This sandwich is then cut into appropriate-sized pieces for eating.

The biscuit-size pieces of wafer sandwich may be further processed by coating (enrobing or moulding) with chocolate or other suitable material.



1.2. FORMULATION OF WAFER BATTERS

Commercial wafers are baked from a batter usually containing 35 - 40% of dry solids. The bulk of the solids present (about 95%) are derived from wheat flour but small amounts of a wide range of other ingredients may be added to the recipe according to individual manufacturer's requirements for texture, flavour or colour.

A typical basic recipe, would include.

Ingredient	Weight (% on flour weight basis)
Flour	100.0
Water	145.0 ~ 155.0
Oil (groundnut) / Veg. Fat	2.40
Soya Lecithin (oil)	1.00
Salt	0.25
Sodium bicarbonate	0.30

...to be continued