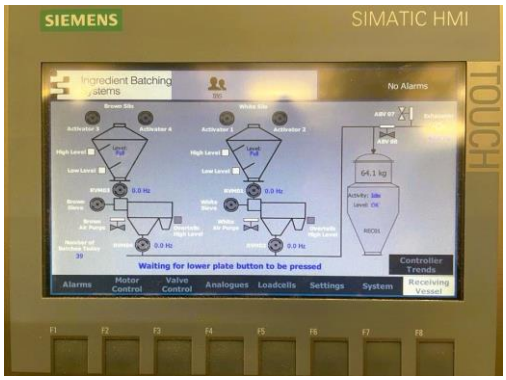
Ingredient Batching Systems
Unit 8, i-Worx Commercial Park, Innovation Way,
Wootton, Bedfordshire. MK43 9SP
Tel: +44 1234 481008,

sales@ingredientbatchingsystems.com

Ingredient Batching Systems LTD
System Case Study

CRAFT BAKERY

White Flour and Brown Flour, Bulk Storage, and Vacuum transfer System to Deliver Weighed Batches to Spiral Dough Bowl Mixers



Craft Bakery

HOW IT WAS…

This system provided automation of a previously manual operator task of adding white flour or brown flour from paper sacks, pre weighed by hand. This manual operation was taking up space inside the bakery of palletised sacked product and also cluttering the space around the mixers with the pre-weighed flours waiting to be added to the mixers. Adding the flours to the open topped mixer dough bowls was also creating dust, and potential health and safety issues for the manual lifting aspect for the operators. The number of flour additions was a total of 8 different batch sizes and could jump from white to brown and back to white again, depending on production

Project Details

Client
CRAFT BAKERY

Status
COMPLETED

Technical Elements
2 x 40 TONNE BULK STORAGE SILOS
IN-LINE SIEVING
10 x BATCHES AN HOUR
RECIPE MANAGEMENT
FULLY TURNKEY PROJECT

THE SOLUTION…

The client wanted to completely change the operation of his ingredient additions, as follows:

- Auto Batch Weighing
- Bulk Storage Silos for the Flours
- 10 x Batches / Hour
- Dust Free
- Auto Sieving and Magnetic Detection
- Repeatable Accuracy
- Recipe Driven Process Control

This system comprised of 2 x bulk storage silos at 40Te each, one for white flour and one for brown flour. The flours are conveyed on demand when the operator presses a button on the control panel (located at the mixers), calling for a recipe driven batch size of either white or brown flour. The flour discharges from the silo at a controlled rate through and sieve and magnet into a vacuum conveying line that delivers the flour to a receiving vessel located in the bakery, by the spiral mixers. The receiving vessel arrangement is designed so that a mobile dough bowl can be positioned below it, and a pneumatically operated seal plate lowers down on top of the dough bowl to contain dust generated when the flour drops from the vessel into the bowl. A vacuum is applied to the seal plate to remove the dust which is recovered back into the receiving vessel, so no product is wasted. This system has resulted in increased productivity for the client, with repeatable accuracy and a dust free environment inside the bakery. And from a health and safety aspect the manual lifting of sacks has been completely removed, along with increased space around the mixers as the sacked additions have been removed. A very happy workforce and a very happy client.