**SG** SYSTEMS
The Traceability Company

*Wedderburn*

# V5™ FORMULA SYSTEM FOR CONTROL AND LOT TRACEABILITY

Paperless Lot Traceability

◇

Product Consistency

◇

Reduced Batch Production Time

◇

Allergen, Safety & Recipe Messaging

◇

Simple Real Time ERP Integration

ADD: I001 (SALT) - 3.70LB
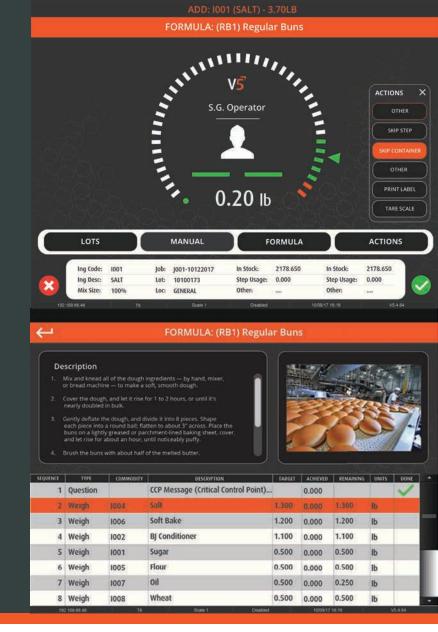FORMULA: (RB1) Regular Buns

## Formulation Control System

SG Systems' V5 Formula Control Scale System is the perfectway to ensure ingredients are measured & traced accurately and consistently, without costly giveaway or out of specification batches.

The system ensures each weighed ingredient has enforced +/- unique tolerances, preventing recipe completion until all ingredients are weighed using the speedometer style target zone.

The system scans and validates lot numbers, providing real time inventory usage and eliminating costly traceability paperwork.

Hundreds of configuration options exist in the standard system, enabling each workstation to be setup to handle many applications including batch, campaign and combination weighing.

The V5 Formula Control Scale System provides effortless compliance with BRC, FDA, FSMA, and many other quality standards.

**Panel 1 detail (scale screen):**

V5 — S.G. Operator — 0.20 lb

ACTIONS: OTHER, SKIP STEP, SKIP CONTAINER, OTHER, PRINT LABEL, TARE SCALE

LOTS | MANUAL | FORMULA | ACTIONS

| Ing Code: | I001 | Job: | J001-10122017 | In Stock: | 2178.650 | In Stock: | 2178.650 |
| Ing Desc: | SALT | Lot: | 10100173 | Step Usage: | 0.000 | Step Usage: | 0.000 |
| Mix Size: | 100% | Loc: | GENERAL | Other: | .... | Other: | .... |

192.168.68.46 | T6 | Scale 1 | Disabled | 10/09/17 18:16 | V5.4.64

**Panel 2 detail (formula screen):**

FORMULA: (RB1) Regular Buns

### Description

1. Mix and knead all of the dough ingredients — by hand, mixer, or bread machine — to make a soft, smooth dough.
2. Cover the dough, and let it rise for 1 to 2 hours, or until it's nearly doubled in bulk.
3. Gently deflate the dough, and divide it into 8 pieces. Shape each piece into a round ball; flatten to about 3" across. Place the buns on a lightly greased or parchment-lined baking sheet, cover, and let rise for about an hour, until noticeably puffy.
4. Brush the buns with about half of the melted butter.

| SEQUENCE | TYPE | COMMODITY | DESCRIPTION | TARGET | ACHIEVED | REMAINING | UNITS | DONE |
|---|---|---|---|---|---|---|---|---|
| 1 | Question | | CCP Message (Critical Control Point)... | | 0.000 | | | ✓ |
| 2 | Weigh | I004 | Salt | 1.300 | 0.000 | 1.300 | lb | |
| 3 | Weigh | I006 | Soft Bake | 1.200 | 0.000 | 1.200 | lb | |
| 4 | Weigh | I002 | BJ Conditioner | 1.100 | 0.000 | 1.100 | lb | |
| 5 | Weigh | I001 | Sugar | 0.500 | 0.000 | 0.500 | lb | |
| 6 | Weigh | I005 | Flour | 0.500 | 0.000 | 0.500 | lb | |
| 7 | Weigh | I007 | Oil | 0.500 | 0.000 | 0.250 | lb | |
| 8 | Weigh | I008 | Wheat | 0.500 | 0.000 | 0.500 | lb | |

192.168.68.46 | T6 | Scale 1 | Disabled | 10/09/17 18:16 | V5.4.64

### Import / Export Possibilities

Allow automated timed data exchange using the optional Gateway module.

Import possibilities include commodities, formulations, production schedules, locations, users, allergens, safety instructions, recipe messages, supplier PO, customer SO, inventory and more.

All data captured can be exported using a timer or event (batch or job completion, receipt or a PO, completion of a SO etc.).

### Warehouse Management System (optional)

- WMS operates on fixed terminals or mobile tablets.
- Receive, move, withdraw and label inventory.
- Record commodity specific QA data.
- Allocate finished batches to sales orders, pick stock, manage freshness and label pallets and ship (against a SO).
- Cycle counting using barcode scanning.
- Multiple unit of measure support, with bulk unit selection for rapid, efficient receipt.



SG SYSTEMS
ALLERGEN ALERT
Allergens present in formula
Gluten | Wheat

**V5 Formula System** for Control & Lot Traceability

At SG Systems, we understand that poor production control and lack of real time factory floor data can reduce the profitability of a manufacturing business between 2-6%.

That's why we have developed the V5 Formula System for Control & Lot Traceability - the most advanced production floor traceability system available.

An optional software interface 'Gateway' lets the user connect to existing IT/ERP systems, allowing critical production, recipe and inventory data to be shared automatically.



### Comprehensive Traceability

Track lot specific received inventory through production (batching, mixing, finished products) to shipping. Track operators through Pin Codes (used to control access levels).

Complete forward and backwards traceability allows supplier and customer led recalls to be resolved quickly and effectively.

### Production, Formulation & Rework Control

Location specific production and formulation control allows management to prioritize production batches and monitor the ingredient usage with scaling weight accuracy. Supports BOM within BOM for hierarchical production.

Flexible formulation control allows rigid or flexible formula setup. Post production batch editing allows ingredient adjustment and substitution post mix (including rework).

### Production and Usage

Setup a library of recipe messages (for SOP, HACCP, COSHH). Graphical on screen prompts ensure commodity specific Safety & Allergen messages are displayed using GHS Symbols.

Batch Validation allows supervisor only batch sign off when completing a formulation.

## Hardware Specifications:

The SG15 Touch Screen is a NEMA4X (IP66) heavy industrial computer designed for harsh manufacturing applications. It is usually supplied with a stainless steel fabricated stand with a built in scale, however the terminal can be supplied and connected to most existing scales and balances using internal connections.

The terminal is constructed using compression seals to maximize ingress protection. Cable entries are sealed and protected. All Terminals are supplied with software applications which run on Windows or Linux as a background operating system.

Stainless steel stands, scales and printer enclosures are fully welded and polished to high manufacturing standards.

### System Design Features

- Touch Screen Operation
- +/- Ingredient Tolerances
- Unlimited Ingredients, Recipes & Users
- Excel Reports
- Label Printer & Scanner Options
- Inventrory Control Software Available
- Bulk Ingredient Control Options
- End of Line Labeling Options

### Supported Peripherals

- Weighing Equipment (4 x analogue inputs, 4 x serial RS232 inputs).
- Barcode Readers (hardwired USB or Bluetooth)
- Label & RFID Printers (network)
- Report Printers (network)
- Temperature Probes (serial RS232)
- PLC & switchgear (serial or network)

### Networking

The terminals utilize TCP/IP communications to a database using a wired or wireless LAN. This allows multiple terminal to communicate with a central database.

Terminal support is conducted using VNC or RDC.

### Application Summary

- Bakery (Commercial & Retail)
- Beverages
- Chemical, Plastics, Polymers
- Food Processing
- Pharmaceuticals
- Seasonings & Blended Ingredients

# Wedderburn