

# INGREDIENT HANDLING AND MIXING CONFECTIONERY

A food and beverage manufacturer with global operations tasked Rospen to provide three continuous inclusion feed systems to deliver +/- 1% feed rate accuracy with the flexibility to handle any combination of 14 difficult-to-handle confectionery ingredients and to be delivered in six packing formats. To add to the complexity of the project, equipment locations were split across two floors in an older and constrained part of the factory.

To meet the manufacturer's high quality specification of <2% damage by weight per ingredient (including smashed, crushed, broken by the plant), we successfully handled 14 separate ingredients with care, including:

**Whole Hazelnuts, Whole Almonds, Raisins, Cinder Toffee, Jellies, Candy Coated Chocolate Shells, Popping Candy, Praline, Cookies, Cola Cubes, Pretzels, Fudge Pieces, Malt Balls, Caramel Cubes.**



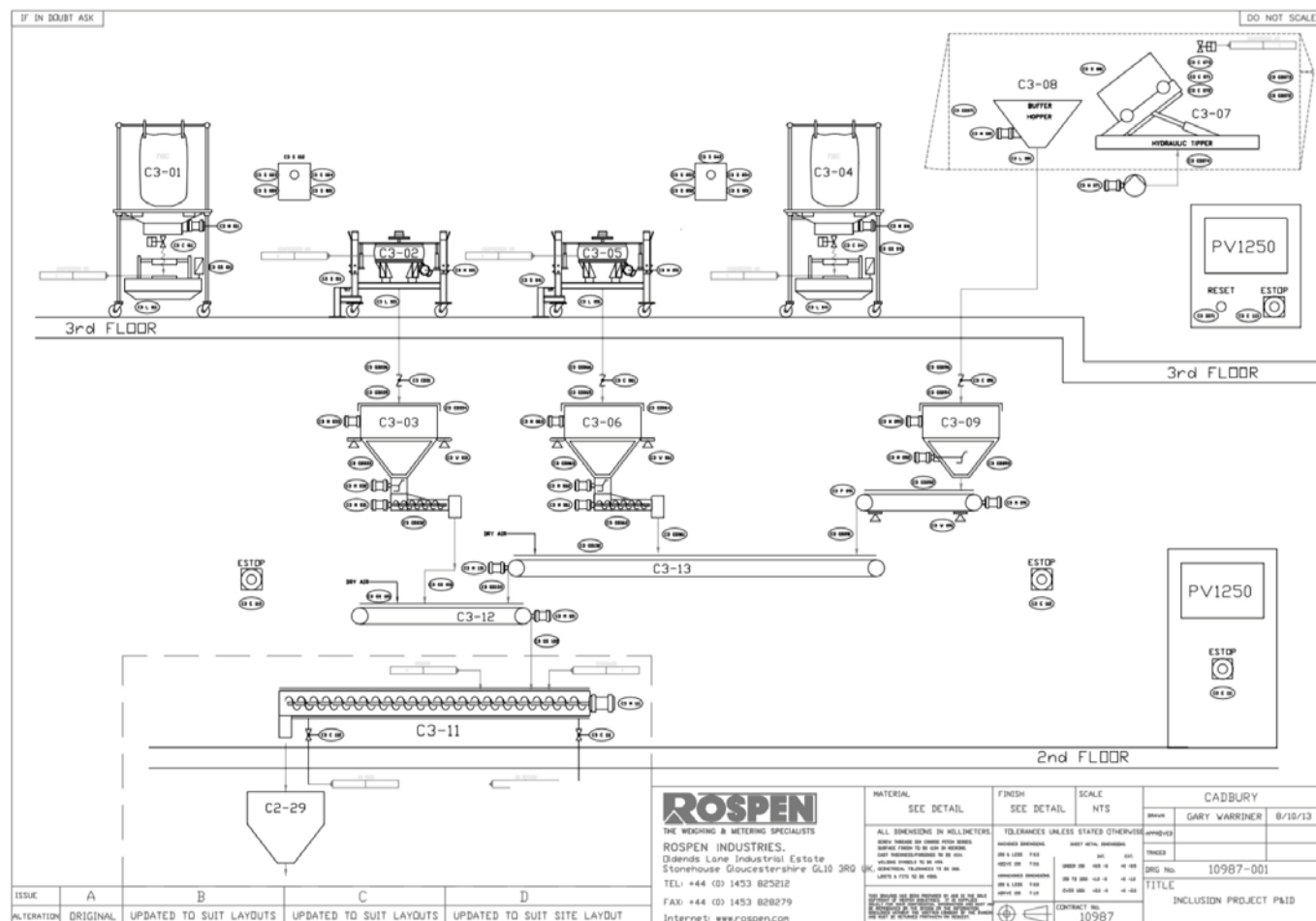
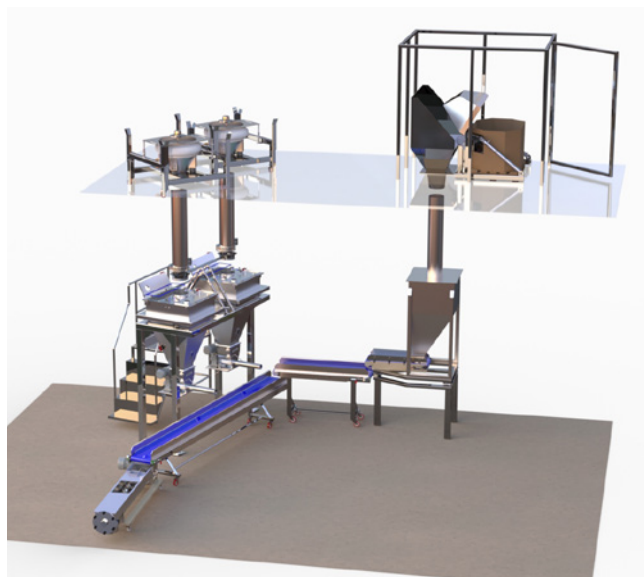
Ingredient packaging varied with FIBC's (800 kg), RIBC's (800kg), Dollies (80kg), Octobins (300kg), Boxes (20 & 12.5kg), Cartons (<5kg). As a requirement, we loaded all packaging into the Rospen system. Our scope of work featured a Turnkey Delivery of a World Class Ingredient Handling system, including:

- ▶ **Test, design and manufacture of the inclusion handling equipment.**
- ▶ **Design and build of the PLC, HMI, MCC and safety circuit panel.**
- ▶ **Design and development of the PLC and HMI control software and communications interface with the plant DCS.**
- ▶ **Delivery and off-loading of equipment.**
- ▶ **Mechanical installation of equipment and full commissioning.**
- ▶ **Supervision of electrical installation.**
- ▶ **Training of client's production and maintenance personnel.**

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Our solution entailed installation of interchangeable FIBC / RIBC unloading stations, a sack tip hopper with a dual octobin / dollie tipper to enable unloading of any packing format, and a combination of screw and belt feeders working on a loss in weight principal to provide accurate dosing and gentle handling of ingredients. Hygienic, quick strip design belt conveyors transfer ingredients to the hot water jacketed enrobing screw, where ingredients combine with the molten chocolate prior to final delivery to the bar forming machine.

Both floors were fitted with environmental control systems to provide optimum manufacturing conditions for the variety of materials handled.



# MANUFACTURING FOR YOUR REQUIREMENTS

Our unrivaled industry experience combined with advanced design and system versatility to provide a range of benefits.

| Highly qualified engineers                                                                                                                                                                                                                                                                 | Precision                                                                                                                                                                               | Reliability                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Our engineers are masters in their field. Rospen engineers are degree-qualified and equipped with comprehensive knowledge and experience to provide custom solutions to unique client challenges.</p> |  <p>Rospen systems are designed to perform with precision accuracy under all operating conditions.</p> |  <p>Our systems are built to ensure long term reliability, maximum up-time and lowest on-going operational costs.</p> |
| Hygiene                                                                                                                                                                                                                                                                                    | Maintenance                                                                                                                                                                             | Flexibility                                                                                                                                                                                              |
|  <p>No matter the application, from pharmaceutical or food to quarry use, our machines are designed with easy strip-down features for hygienic cleaning.</p>                                            |  <p>Design ingenuity enables quick and easy access for maintenance and low downtime.</p>             |  <p>Standard design features ensure complete flexibility within existing manufacturing.</p>                         |



## CONTACT US

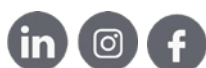
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