Sugar Conveying Systems

Having a robust and efficient conveying system is the backbone of any process business.

Conveying Sugar is a dusty process, the dust is explosive and extra safety considerations have to be implemented.

The ATEX Directive gives the standard for machinery within explosive atmospheres such as dust, gas and vapours. Machinery for these areas have to undergo stringent assessments to ensure their safety.

Geo Robson have a range of ATEX certified products for food and sugar conveying and processing.

Each product is assessed and certified to ensure the functionality and safety are paramount to the design.

Conveying and its Challenges

Sugar is unique in its make-up with various forms, from beet to cane, wet and dry processes, with that in mind, considerations for size and consistency have to be factored. Supplied as raw beet or cane under going the slicing and pulping processing on to drying and crystallising, all could cause problems in the conveying or transporting process.

Robson, have developed food quality ATEX certified systems for conveying and screening of the material to ensure foreign material such as steel and oversized material is separated from the material flow. Designed to suit individual customer requirements, safe guards and material checking are implemented to protect the processing equipment.

Screening and Conveying

Robson Engineers combined the screening and conveying technologies to develop an automated system of grading screens, metal checking and separation equipment that ensures the material is free from items that may contaminate the sugar or cause problems to system. The system is available for all sugar handling and processing applications such as Bulk Out Loading (drawing above).
**Convey & Elevate**

**Mixing & Feeding**

**Screening & Metal Checks**

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**Conveying and Screening Systems**

**Airglide Conveyors** are the optimum solution for conveying granular and pelleted material. Frictionless movement of the belt ensures a low power consumption. Light weight Stainless Steel construction, the conveyor is ATEX rated to ensure dust explosion prevention. Minimal Maintenance, Food quality belts. Fully enclosed to protect the product from contamination and weathering. Available for use within with tubular or open gantries.

**Troughed Belt Conveyors** used for courser material. The troughed design ensures no spillage. Bespoke designs to ensure the customers needs are met. Up to 2m wide food quality conveyor belts, Stainless or mild steel covers to fully enclose the conveyor.

**Screw conveyors** are used for the feeding, conveying and mixing of material. Constructed from Mild Steel and or Stainless Steel designed and built for robust reliability. Robson’s speciality long span Screw conveyors, constructed up to 12m long without the need for Hanger Bearings, fully sealed covers with formed flanges.

**Bucket Elevators** used for elevating product to fill silo’s or bins the elevator have a small footprint area and transfer the product vertically.

**Vibration Screens** to ensure that oversized or foreign objects are separated Screens are utilised. Powered by two unbalanced motors, the Screens sieve the material, transferring over sized and foreign objects to a reject chute. Springs isolate the vibration from the system ensuring safety.

**Vibration Conveyors** work in a very similar way to the Screens, by vibrating the material from the infeed to the discharge, with the accuracy of the vibration feeder means they are ideal for feeding and dosing applications.

**Metal Separation Systems** over band magnets are used in conjunction with vibration feeders to filter out metallic objects with in the material, separated metal pieces are magnetically transferred to a reject chute.

**Drum Magnets** are used inline with in a chute the material flows over the drum, internal magnets attract the metal and transfers it to a reject chute.

**Storage Solutions**, Robson have the capability to design and build all types of Silo’s and Bunkers, with expertise in bulk material warehousing with integral tripper conveyors and feed systems.

**Lorry Unload & Tanker Loading Systems**, for Beet and Cane products unloading systems for tipper trucks and bunker feed systems, loading spouts or conveying systems for Tanker loading.

**Weigh Bridge and Inline Weighing Systems**, for the continuous weighing of product or the final weigh operation for despatch.
Robson Sugar Handling Equipment & Services Catalogue

- Troughed Belt Conveyors
- Airglide Conveyors
- Belt Bucket Elevators
- Vibration Conveyors and Screens
- Chute Work & Diverter Chutes
- Structural and Ancillary Steelwork
- 3D Modelling & Simulation
- Metal check and Separation Systems
- Storage Solutions
- Lorry Unload / Loading Systems
- Structural Steel & Fabricated Buildings
- Refurbishments
- Electrical Controls
- Standard & Bespoke Solutions

Robson Capabilities

Feasibility Study
Robson’s Feasibility Service offers an objective, unbiased approach to provide information upon which commercial and development decisions can be based.

Design
Experienced System Design Engineers. Using both 2D and 3D design packages. System Designs are based on latest standards meeting all relevant European directives and safety regulations.

Manufacture
Modern Manufacturing Coupled with Traditional Engineering Values ensure the Conveyor System is manufactured to the highest quality. Robson’s quality system is approved to BS EN ISO 9001.

Installation
Robson’s On Site Engineering Team ensure the installation is performed safely and to time scales. Site work is over seen by an experienced Robson’s site manager, ensuring all CDM regulations and site rules are adhered to.

Electrical Controls
Robson’s Electrical Engineers have the skills and qualifications to design the project control system. The Project Management, Design, Supply, Installation and commissioning.

Commissioning
Robson ensures that all Handling Systems meet the design criteria with thorough performance testing, each stage is recorded and verified to ensure the customer is provided with a robust reliable conveying system.

Project Management
Robson prides itself on its award winning customer service, providing the customer with a Single Point Contact from the projects Concept to Completion. Each Project Manager is fully experienced within the Handling Industry.

Site Management
Robson Site Managers are on site throughout the Installation / Commissioning Period as above the site work is over seen by an experienced site manager, ensuring all CDM regulations and site rules are adhered to.

Modifications to existing Systems
Robson’s conveyor range are designed to accommodate future modifications, standard parts and common fixing points that allow the Extension, Improvements, Replacement and Reconfiguration.

Spares
Mechanical and Electrical Conveyor components - Supplied and fitted by skilled engineers.