Rite Weight™ Feeder

the power in powders
Rite Weight™ Feeder

“The high cost of ingredients demands tighter control of feed rates.”

the rite weight concept

Carolina Conveying manufacture 2 types of competitive and versatile Weigh Feeders, designed to meet the demands for high accuracy solids feeding in industry:

- The General Purpose Rite Weight™ Feeder
- The Sanitary Rite Weight™ Feeder

high accuracy

The Rite Weight™ Feeder has been designed to cope with the rigorous demands of modern Weigh Feeding applications, where the high cost of ingredients demand tighter control of feed rates and variations of bulk density significantly affect the flow rate.

Sophisticated software control coupled to the well proven Feeder design has resulted in achievable accuracies of ± 0.5% (or better) of target flow rate.

modular systems

Designed to operate in a wide variety of different environments, the Rite Weight™ feeder can be built into most handling systems. It is fully compatible with the existing Soliweigh MK1 & MK2 systems as well as the Solifeeder range of Volumetric Feeders.

Each may be tailored to suit the required application precisely. Integration with external control systems is a key feature in the design.
versatile

The Rite Weight Feeder reflects the experience gained from over 30 years involvement in the design and production of bulk handling equipment, with many thousands of powder handling systems already supplied. Carolina Conveying have now developed an outstandingly versatile Weigh Feeder capable of measuring many different products by gravimetric methods in batch or continuous mode.

robust design

Carolina Conveying have won an excellent reputation for quality, a reputation maintained by rigorous Q.A. procedures and continual development of production techniques allied to the latest computer aided design methods.

Well equipped factories produce the range of Weighing, Storage, Feeding, Conveying, Mixing and Process Plant Systems manufactured in aluminum, mild steel and stainless steel.

These factories also produce spare parts to the original specification so all Carolina Conveying users can be sure that replacement parts are easily obtainable and will fit accurately, regardless of the age of the unit.

simple operation

The Rite Weight™ Feeder has been designed to keep operation as simple as possible.

The target flow rate is entered via a keypad on the controller.

The software automatically monitors the resultant loss - in - weight as material is discharged. The calculated flow rate is compared to the target flow rate and any error is corrected by varying the speed of the feeder drive.

Automatic refilling is accomplished using standard Carolina Conveying machines such as Bin Activators, Soliflo Dischargers under the control of the Rite Weight Feeder.

The Feeder will maintain a calculated output during the refilling cycle.

electronic control

Once the Rite Weight™ Feeder is in operation all monitoring is automatic. Minimal operator intervention is needed. A full self diagnostic routine guards against any event that will threaten the continuous discharge of material. If an alarm condition persists a visual display will identify the source of the problem.

The status of the Rite Weight™ Feeder can be communicated to supervisory control systems, using standard communications links.

reliability

Over 3,000 Carolina Conveying Feeders are already in use throughout the World, where their virtues of easy maintenance, reliability in continuous heavy duty applications and compact, effective design are fully appreciated.

applications

Robust and flexible, The Rite Weight™ Feeder may be applied to all bulk handling needs. Modular design has produced a system that is tailor made to fit actual requirements and operating conditions anywhere in the World.

Standard 1/0 data permit the controller to interface with all common process control computers whilst sophisticated software reveals a high degree of independent operational capability.

Carolina Conveying weighing systems have already been applied to these industries.

- Food Industry
- Agriculture
- Petrochemical
- Glass
- Rubber
- Plastics
- Foundry
**screw feeder**
Approximate capabilities from 30 - 10000 lb/hr.
Full range of wire and flighted shafts available.
For a full specification please see separate feeder leaflet.

**weigh platform**
- **Capacity**: 30 lb and 600 lb.
- **Configuration**: 3 load cell system

**load cell specification**
- **Type**: Bending Beam
- **Capacity**: 100 lb and 200 lb.
- **Temp**: -15° F to +155° F
- **Safe load**: 150%
- **FSO**: 2 MV/V

**specifications**
- **weigh platform**
- **load cell specification**

**special features**
- Proven Feeder Design
- Self Diagnostic Fault Conditions
- Accurate Flow Rate Control
- Hazardous Area Applications
- User Friendly Operation
- Versatile Software
- Cost Effective
- Simple Calibration and Commissioning
- Full After Sales Support
**Power Supply**: 110V - 220V (+10% - 15%) 50/60 Hz.

**Power Consumption**: 60 VA.

**Temp Range**: -15°F to +105°F (Operational), -10°F to +155°F (Storage).

**Keyboard**: 24 Key with parameter switch

**Display**: 6 Clear vision LED’s with 7 segments, 16 LCD for text.

**Memory**: REPROM 512 K, RAM 64 K, Battery back up.

**Digital Inputs**: 8 Differential isolated digital inputs.

**Digital Outputs**: 8 Dry contact 110 V/IA.

**Analogue Inputs**: 3 4/20 Ma or 0/5 V or 0/10 V. Weight signal 16 Bit, Others 12 Bit.

**Analogue Outputs**: 3 4/20 Ma or 0/5 V or 0/10 V. 12 Bit.

**Communications**: RS 232C, RS 422, RS 485.

**Options**: Printer, VDU Keyboard, Computer, Modem.

**VSD Unit**: Independent drive motor and agitator motor control.

**Accuracy**: ± 0.5% based on standard Carolina Conveying test methods.
Carolina Conveying

product range

- Bin Activators
- Soliflo™ Dischargers
- Solibin™ IBC Systems
- FIBC Systems
- Rite Rate™ Feeders
- Rite Weight™ Feeders
- DiscAir™ Aeromechanical Conveyors
- Bio-Bin™ Dense Phase Pneumatic Conveying
- Bio-Bend™ Ni Hard Bends
- Rotary Valves
- Side Entry Rotary Valves
- Blow Thru Rotary Valves
- Double Dumps
- Flexible Conveying Diverters

Carolina Conveying

Specialists in powder handling components and systems. We offer a very comprehensive range of products including Rotary Airlocks, IBC Systems, Diverter Valves, Silo Dischargers, Volumetric and Weighing Systems, Aero-mechanical Conveyors and Dense Phase Conveying Systems.

Carolina Conveying

Technology

product test facility with our complete range of machines allowing prospective clients to visit and witness trials. State of the art CAD and manufacturing facilities for material handling systems.

Carolina Conveying

Design

products are always designed to suit your particular application and requirements.

Carolina Conveying

Philosophy

it is our company policy to supply customers with products which conform to the highest quality specifications, are fit for their intended purpose, and offer a wide range of support services including installation, commissioning and service contracts.

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