



Closed Control Loop Loss-in-Weight Snack Flavoring System



SPRAY
DYNAMICS *Inc.*
www.spraydynamics.com



Our New Closed Control Loop Seasoning System was designed incorporating over 50 years of knowledge in the coating business.

The System will provide you with:

- ▶ Verifiable Data
- ▶ Exact Oil Application
- ▶ Exact Seasoning Application
- ▶ Electronic History of Data
- ▶ Less Breakage and a High Quality Product



Not all Products are the Same. Our Engineers and Research Scientist review each Coating Drum Order to ensure the Flight Design is the proper design. Over 20 different Flight Designs are available and are product dependent.



Allergen Concerns are addressed using our Dustless Option. This design also works well for extremely Dusty Products.

All Coating Drums are manufactured using double skin stainless steel. This completely eliminates the possibility of contamination. Retention Cones can be varied by product.

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Powder Application Devices

The Delta Dry maximizes production, cuts costs, and assures finished product quality. The costly powders and seasonings that you apply are key to your label claims (low and fat-free) and critical to your customer's satisfaction. As a result, controlling and verify the application rate of the applied powder/seasoning gravimetrically means using the correct amount-*no more, no less*.

The Delta Dry enables your operator to specify the precise amount of powder/seasoning to be dispensed in pound or grams per minute. The Delta Dry controller filters vibration while continually varying the rotation speed of the auger to achieve the specified rate of "loss" from the Uni-spense.

This item is compatible with our Uni-spense I and III Dry Ingredient applicators. Additionally, they are designed as a stand along controller for the Uni-spense or to be integrated with a Weigh Belt or Magna Weigh.



Uni-spense® Dry Applicator

Our Heavy-Duty load cell is offered as standard equipment. The load cells unique mounting design insures that weighing accuracy is not affected by uneven loading. The load cells are hermetically sealed, resistant to vibration, overload protected, and operate in a wide range of temperatures.

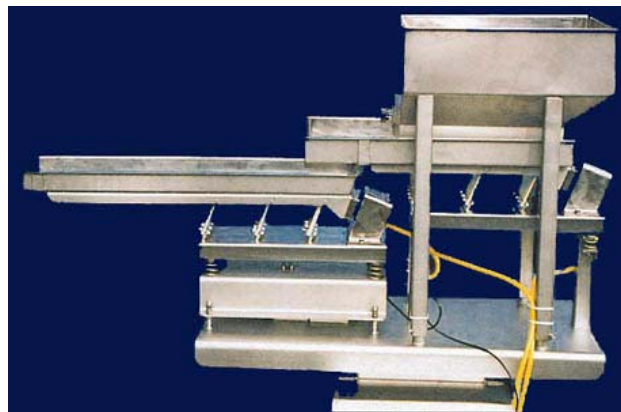


The Feeding System to the Coating Drum is the heart of the coating system.

Two Types are available in different configurations to meet your individual needs. Both Systems are Closed Loop and take the operator guess work out of the coating process.

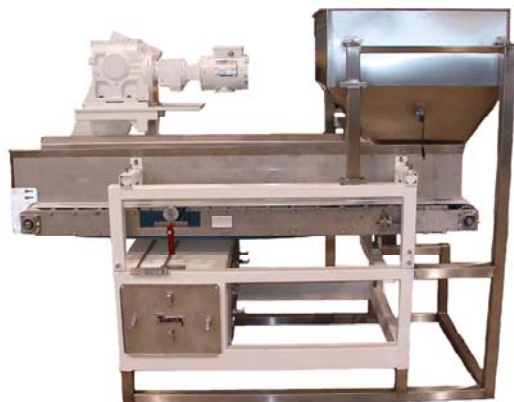
Variable Mass Weighing—Signals from the Feeding System provide the Oil System and the Dry Seasoner with a snapshot of base product coming into the Coating Drum over 100 times per minute. This is a good choice for items that flow freely in a Hopper such as Chips.

Constant Mass Weighing—The Feeding System controls the amount of base product coming into the coating drum. The feeding system will shut off the entire system should sufficient base product not be available.



The Patented “Magna Weigh Feeding System®

The Magna Weigh Feeder® is a In-line weighing conveyor designed to feed products by weight. It combines the simplicity and cleanliness of a vibratory conveyor with the weighing capabilities of a weigh belt. The Magna Weigh Feeder® is superior to volumetric feeders in its ability to compensate automatically for changes in the bulk densities of products. A signal, proportional to product rate, may be used to control one or more slave products in seasoning, mixing and blending applications.



The Weigh Belt provides complete mass counterbalancing of a dead load of the conveyor permitting the load sensor to react only to the net material load. This system is not affected by Dirt, Shock, or Vibration and withstand overloads in excess of 1,000 Pounds without causing damage or affecting calibration.

Liquid Spray Systems available in the Closed Loop Coating System



The **Master Series I, Micro Meter Spray System** is designed to accurately deliver a Clear Liquid inside the Coating Drum. A Flow Meter is not needed on this system as it uses Positive Displacement Air Operated Pulsing Pumps. The pumps can be pulsed up to 250 times per minute and the pulsing can be controlled by a 4 – 20 MA signal from the Weigh Belt or Magna Weigh.

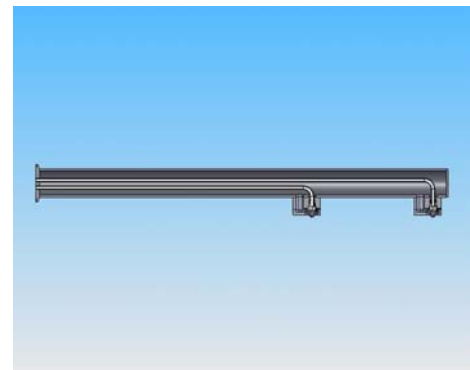
The “Clog-Free” Continuous Slurry and Oil Applicator is designed to deliver virtually any Solution that contains Particulates. The applicator can also be configured with a Hot or Cold water jacket if needed, and can be configured to spray Chocolate, a High Brix Sugar (up to 85 Brix). When combined with an optional Micro Motion Flow meter, accuracy can be achieved +/- 1%. This Spray Unit requires NO compressed air to disperse as it comes complete with its own regenerative blower. Each Spray station has its own cleanout piston to keep the nozzle clean day after day.



The Master Series III Continuous Spray System is designed for applying a high volume of Clean Liquid inside a Coating Drum. The system needs NO compressed air to atomize as two intersecting streams of liquid intersect to atomize the spray. The net effect is virtually no misting. The Liquid is then sprayed inside the coating drum using a unique 2-hole nozzle to obtain a perfect fan spray of liquid.



The New LC series is designed to accurately deliver oil on a continuous basis inside the coating drum while maintaining a low initial capital purchase price. Atomization is achieved using a Regenerative Blower so no plant air is needed. Can deliver small amounts of liquid per hour on a continuous basis. The unit can be combined with a flow meter when a high degree of accuracy is needed.



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