

Electrostatic Application on Donuts

Sugar, granulated sugar, icing sugar and aromas can be efficiently applied on donuts, with significant savings and quality improvements.

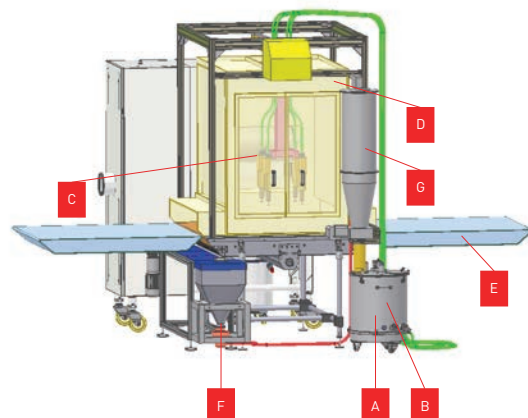
Technical data

- Conveyor width: 1000 mm
- Conveyor speed: 5 m/min
- Amount of powder: 1g/piece
- Product size: max 100 mm
- Production: 15.000 pieces/h
- Applied powders:
 - Sugar
 - Granulated sugar
 - Icing sugar
 - Flavors



Operating Principle

- The powder is loaded into the hopper (A). Venturi pumps (B) transport the powder to the electrostatic guns (C) that apply it on the products.
- The application takes place in a powder booth (D) which is kept in depression by an air extraction system and filter.
- The powder that is not applied on the product falls on the belt (E) and is recovered through a hopper (F) and sent back via the sieve (G) into the hopper (A).
- In the booth the pieces are automatically turned to allow the application of the powder on all surfaces.



Powder savings

- The customer reports savings between 25% (sugar) and 30% (powdered sugar), thanks to the excellent adhesion of sugar on the product.
- Significant decrease of powder losses:
 - On the conveyor belt
 - Inside the freezer
 - During packaging



Quality Improvements

- A constant amount of powder is applied on all surfaces of the product.
- Coating results are easy reproducible: the amount of applied powder can be easily and precisely adjusted and remains constant for the whole production
- Thanks to the excellent adhesion on the products powder flavors can be applied where parts are already glazed.
- Reduced damage of the products in comparison to traditional production systems. The products do not stick on each other.



Improved process stability

- The application takes place in a depressurized booth that prevents powder escaping to the ambient.
- The powder that is not deposited on the product can be recovered, sieved and immediately reused.
- Strong reduction of packaging problems and down-time thanks to the improved adhesion of the powder on the products.



Gema Switzerland reserves the right to make technical changes without prior notice!

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