NEW COATING SOLUTION

Coaterow

Represented by Sanwa System Corporation
What is Coaterow?

- New Concept to the next coating equipment generation.
- New coating solution replacing for the classical revolving pan with Coaterow Tipton technology.
FEATURES & EFFECT

• Hi Efficient Processing
  ( overall efficiency increased : 3 times)
• Flexibility to different size and different type of Centers (applications)
• Easy to the operational coating process
  ( no more skilled operator )
ADVANTAGES

- Reduce cycle times
- Improve quality
- Increase productivity
- Improve ambient conditions in coating rooms (Operator friendly)
- More safety because of the stationery tub
SPECIFIC RESULTS

Better and faster extension of the addition of additives (syrup, chocolate, powder, etc..) to the centers thanks to the whole centers turning and flowing by themselves by means of the coater movement principal.

- No more uneven coating and no more dried irregularity.
- No waste of coating material sticking on the tub.
- No twin centers sticking together by coating.
- No dispersion of the coating materials into the coating rooms.
- Reduction of damages to the centers.
COATER MOVEMENT PRINCIPAL

The tub has a rotating bottom disc which is the spinner design and stationary wall. Centrifugal force is generated by high speed rotation of the bottom disc. And Its centrifugal force generated makes the centers turn and flowed toward and upward the stationary wall, and then descended with turning by themselves. Through the combination of the descending and rotating movement by the bottom disc, consequently whirling floating of the center mass is generated.

Air

[Diagram showing the coater movement principal with labels for Rotating Bottom Disc, Stationary Wall, and air flow indicated by arrows.]

RED Arrow shows the movement of the centers
PRODUCTS REFERENCE

- Chocolate coating to Almond, Rice cake.
- Wheat powder coating to Peanuts
- Sugar coating to Gum (hard coat)
- Cocoa Powder coating to Chocolate
- Chocolate coating to puffed snacks
- Powder coating to hard candy
- ETC..
SALES REFERENCE

- Morinaga
- Yamazaki Nabisco
- Ribon
- Kanebo Foods
- Mikakuto
- Denroku
- Kanro
- Showei Foods (Robinia)
- Mary’s Chocolate Company
- Pain Confectionery
# COMPARISON

Comparison for Production efficiency between Classic Revolving Pan 300L and ECM-200 (200L)

<table>
<thead>
<tr>
<th>Products</th>
<th>Conditions</th>
<th>Revolving Pan (300L)</th>
<th>ECM-200 (200L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peanuts chocolate balls</td>
<td>Center Net Weight</td>
<td>24Kg</td>
<td>36Kg</td>
</tr>
<tr>
<td></td>
<td>Final Products Weight</td>
<td>35Kg</td>
<td>65Kg</td>
</tr>
<tr>
<td></td>
<td>Cycle Time</td>
<td>60minutes</td>
<td>60minutes</td>
</tr>
<tr>
<td></td>
<td>Product Rate</td>
<td>100</td>
<td>186</td>
</tr>
<tr>
<td>Raisin Chocolate</td>
<td>Center Net Weight</td>
<td>20Kg</td>
<td>30Kg</td>
</tr>
<tr>
<td></td>
<td>Final Products Weight</td>
<td>50Kg</td>
<td>75Kg</td>
</tr>
<tr>
<td></td>
<td>Cycle Time</td>
<td>120minutes</td>
<td>50minutes</td>
</tr>
<tr>
<td></td>
<td>Product Ratio</td>
<td>100</td>
<td>360</td>
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<tr>
<td>Almond Chocolate</td>
<td>Center Net Weight</td>
<td>20Kg</td>
<td>20Kg</td>
</tr>
<tr>
<td></td>
<td>Final Products Weight</td>
<td>75Kg</td>
<td>75Kg</td>
</tr>
<tr>
<td></td>
<td>Cycle Time</td>
<td>120minutes</td>
<td>60minutes</td>
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<td>200</td>
</tr>
</tbody>
</table>

Flow of Cooling Air: 10-15m3/min on Revolving Pan; 25-30m3/min on ECM-200

Associated Waste of the chocolate per batch: 3000g on Revolving Pan; 35g on ECM-200
ECM 200 INSTALLATION

4 sets of ECM-200: Installed at a subsidiary of Showei Foods (Robinia)
MACHINE FEATURES

- Urethane Lining (Stainless Steel version is available)
  - Reduction of damages to fragile centers
- Manual Operation, Semi-Auto, and Full Automatic version is available
- Patent Pending:
  * The Flower Shape of the inside tub.
  * The coater with the Water Inlet for cleaning and Air Supply Inlet on the bottom of tub.